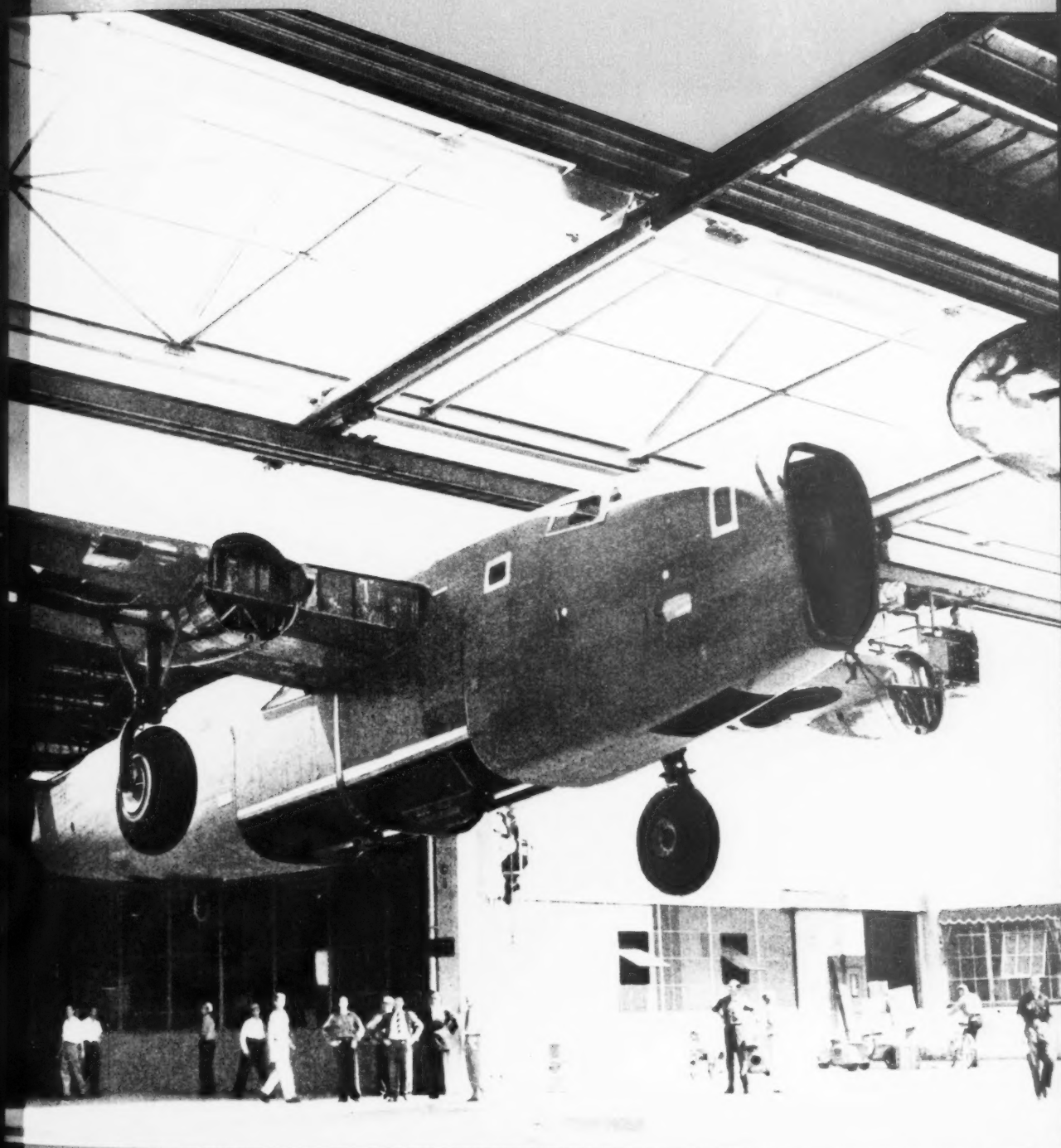


VOLUME VIII
NO. 5

WESTERN INDUSTRY



Twenty-Five Cents

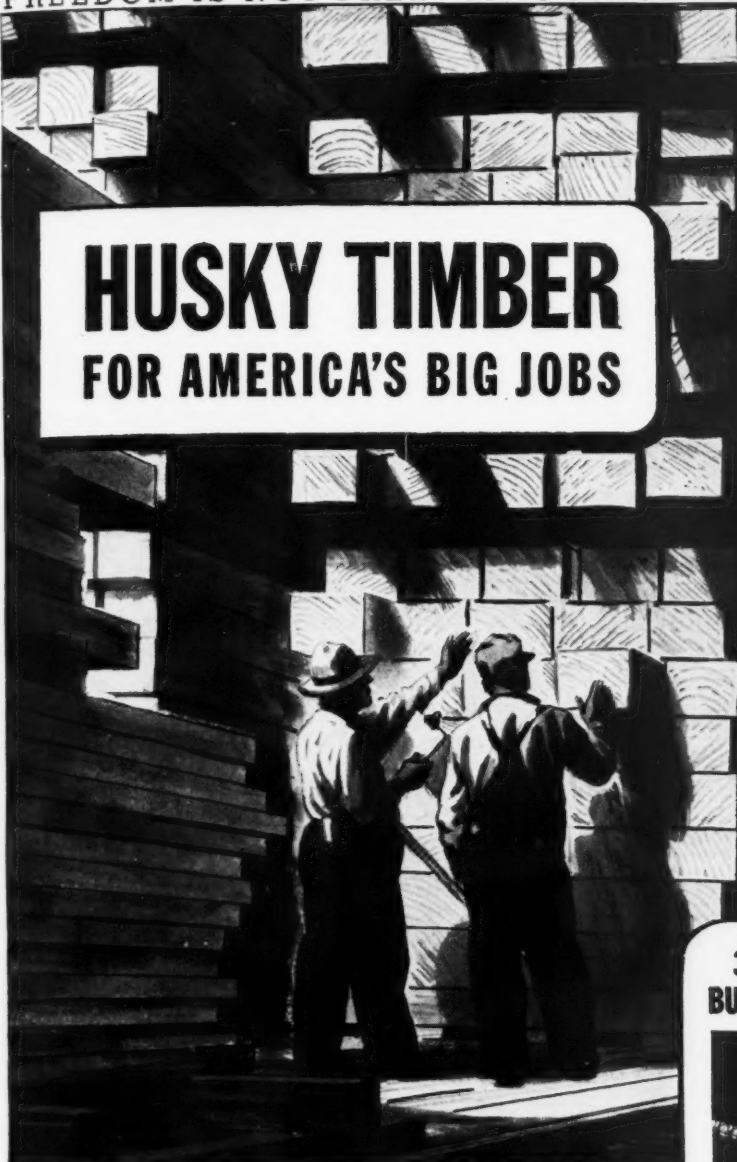
August, 1943

If one were to single out
one particular advantage,
among the many which
make VICTOR cutting and
welding torches famous,
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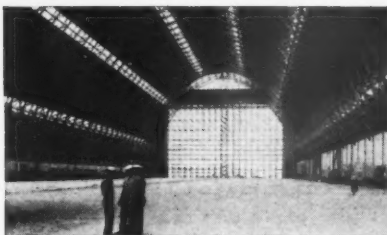
They COST LESS
to operate!

victor equipment company
844-54 folsom street
san francisco, california

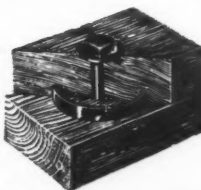
HUSKY TIMBER FOR AMERICA'S BIG JOBS



3 MILLION FEET OF TIMBER BUILT THIS VAST NAVY HANGAR



Construction view of one of the Navy's mammoth new blimp hangars. Length 1,000 feet; clear-span width 237 feet; height 153 feet. Timber prefabricated by Timber Structures, Inc., Portland, Oregon.



The **TECO** Ring Connector spreads the load on a timber joint over practically the entire cross-section of the wood . . . brings the full structural strength of lumber into play.

The TECO Connector System of timber prefabrication makes it possible to employ timber *efficiently and economically* in heavy structural engineering. Many great war plants, shipyards, docks, warehouses, hangars, bridges, and towers have been built entirely of timber under the TECO Connector System. From the lumber to the finished unit, every step in modern prefabrication is controlled by sound engineering practice. The use of TECO Split-Ring Connectors and TECO precision grooving tools results in a high degree of speed, both in assembly and in erection.

For Prefabricated Timber **Specify TECO** Timber Connectors and Tools

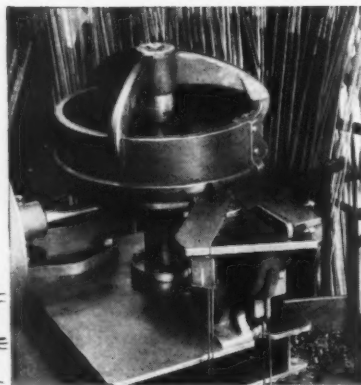
SPONSORED SINCE 1933 BY THE NATIONAL LUMBER MANUFACTURERS ASSN.

Write for TECO's Free Literature and List of Engineering Services

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better **M**ethods

... machines with a sense of touch



A link stringing machine which feels beveled edges to position links correctly.

The equivalent of the senses of sight, hearing and touch have been duplicated mechanically by machine designers, with a vast saving of human effort and equally important product improvement. The urge of Baldwin-Duckworth engineers to "make better things" inspired them to design this machine with a sense of touch. It sorts and strings links to be fed into automatic assembly machines—literally feels the beveled edges of the links and places them in correct position on wire magazines. It safeguards this part of the assembly against any possibility of error.

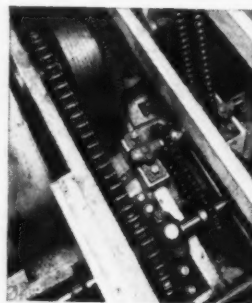
better **D**rives with **Baldwin Roller Chain Belts**

Many kinds of production call for precise mechanical positioning and deft, continuous mechanical operations. Here, as in most other instances, the drive for the machine is best handled by roller chain belt. *Baldwin Roller Chain Belts, by reason of their precise manufacture, unfailingly give maximum accuracy in split-second timing, smooth and jerk-free operation, virtually 100% efficiency and total absorption of loading shocks.* It has been established that chain belts are the only medium of power transmission that can absorb shockloading without loss of speed ratios or efficiency.

The Baldwin-Duckworth catalog is a storehouse of information on roller chain belts. But a Baldwin man can serve you personally on matters having to do with the drive for machines which you may be operating or adapting. Call him—he will be glad to help you.

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This Baldwin Roller Chain drive assures:

1. Positive maintenance of speed ratios
2. Equal efficiency on long or short centers
3. Smooth, quiet, jerk-free operation

IT'S BALDWIN-EQUIPPED

better **D**rives through
better **M**ethods

BALDWIN

ROLLER CHAIN BELTS

WESTERN INDUSTRY—August, 1943

EDITORIAL COMMENT

(Communications on any subject of interest to our readers are welcomed. If author wishes, his name will not be used. Unsigned contributions will be disregarded.)

Unutilized Manpower

THE following letter to *Western Industry*, from Harold Worth of Los Angeles, speaks for itself, although in fairness to the government it should be stated that if employers are willing to have the alien applicant for a position answer the questions in an 18-page questionnaire he can be put to work immediately pending final government approval. The latter process has been shortened considerably so it should only take two to four weeks.

"In regard to manpower shortage. To help alleviate this situation it should be made possible for defense industries to utilize friendly aliens in their industries without having to apply to Washington for permission to employ them. If they have birth certificates to prove their origin, this should be all that is necessary, providing they can give references as to their character and ability.

"Defense industries claim it takes from 8/12 weeks to get permission from Washington to employ an alien (friendly), and unless the applicant for work has some very outstanding abilities, these defense industries are naturally very loath to go through all the red tape necessary to employ such persons.

"On this account there is a lot of really worthwhile available manpower going to waste at the present time, as far as the war effort is concerned.

"Personally, I feel rather badly about this situation, as I am a British subject myself and I know a good many Britishers living in Southern California, many of them good technicians and engineers, who are chafing at the bit because they are not allowed to help. I don't think the U. S. would find any nationality more loyal than the average Britisher.

"In Britain and the British Commonwealth of Nations, the shoe is on the other foot. You have to work, whether you want to or not, regardless of what your citizenship might be."

We Get What We Deserve

"I ENJOY very much reading your informative magazine, *Western Industry*, which keeps me up to date with new industrial developments throughout the region," writes P. Hetherton, executive officer of the Washington State Planning Council.

"In your June issue, your leading editorial entitled 'Give Us Business-like Government' deserves an answer and I think the best answer to it comes from the July 10 issue of the Saturday Evening Post in which Herbert Morrison of Churchill's Cabinet is quoted as follows:

"The bloke who handles national politics in the United States must be a smarter fellow than the politician in England. Over here the people give an office holder an immense amount of power and it is his own fault if he fails to do a good job. If he does fail, of course he gets the sack. In the States you put a man in office for a certain term and then tie his hands with all sorts of checks and balances. Whether he asks or not, he just stays in there and bowls. You seem not to trust your rulers. I guess George II mopped up that situation a bit."

"My own answer to your editorial is that it is a wonder we have as good a government as we have, and that goes not only for the federal government but for states, counties and cities. Further, what we do have we (you and I) are responsible for and have only ourselves to blame."

WESTERN INDUSTRY

News, Methods, Solutions to Problems of the Principal Manufacturing and Processing Industries of the West

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OUR COVER PICTURE

• This is one of the reasons why San Diego is now an outstanding industrial city, nearing 300,000 population and one of the most important production centers on the Pacific Coast. Picture shows a nearly completed B-24 Liberator emerging from the giant factory of Consolidated-Vultee Aircraft Corp., a monorail carrying it outdoors for final assembly operations.



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Scientific tests have built the reputation of Latchford-Marble units as unexcelled for quality, clarity and durability. These are the reasons that men in the food, wine, brewing, bottling, liquor, chemical and allied industries specify Latchford-Marble for their bottling and packaging needs.

Today Latchford-Marble units, whether bottles or jars, are waging an endless and victorious battle to alleviate the packaging shortages in many new and vitally important industries. Their theatres of operation are varied, indus-

trial—commercially—and military. Many new and unusual problems of packaging are being met and solved—as new values are demanded of glass containers.

Every advancement and perfection in the manufacture of high quality glass being made today—will be available to packaging and bottling industries after the war. They will be units of glass that are made the right way—the Latchford-Marble way. Improved glass containers that will deliver your goods to any sales front. Units of clarity, quality, brilliance

and durability that will flatter your product and place it in the front lines of sales and profits.



The unexcelled value of Latchford-Marble glass containers for the food, wine, brewing, bottling, liquor, chemical and allied industries is based on 25 years of experience in the manufacture of high quality glass.



**LATCHFORD-MARBLE
GLASS COMPANY**

7507 So. Roseberry Ave., Los Angeles, California
in San Francisco: Northern Glass Co., 118 Sacramento St.



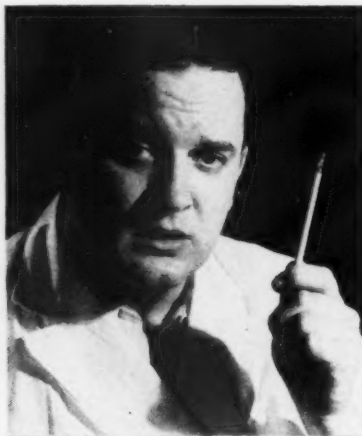
GIVE METAL TOP PROTECTION AGAINST RUST

1 In comparative tests, Stop-Rust D-1, Union Oil's new rust preventive, gives longer and better protection against heat, rain, wind, fog and cold.



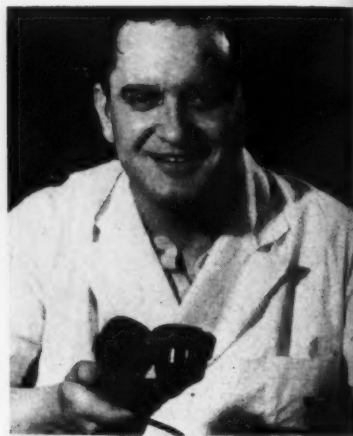
2 You see, Union Oil research men have built into Stop-Rust D-1 some highly desirable qualities. Below-zero weather and heat such as you find in the desert during summer have no adverse effects on its protective qualities. Yet despite its toughness, Stop-Rust D-1 can be removed by simply wiping with a cloth saturated with kerosene.

TAKE THIS TIP! When you buy petroleum products, buy enough to last. It will protect you against transportation tie-ups and will insure you of an adequate supply of the products you need.



3 Stop-Rust D-1 becomes tack-free six or eight hours after it has been applied. Then coated metal can be handled without danger of the film being removed. Stop-Rust D-1 is economical too. One cubic centimeter will cover 15 square inches of surface (equivalent to 393 square feet per gallon).

**UNION OIL
COMPANY**



4 So while you have it in mind, order a supply of this outstanding product from your Union Oil Resident Manager. It's a sure-fire way to protect vital materials and equipment.

OIL IS AMMUNITION—USE IT WISELY!



OTHER SERVICE-PROVED UNION OIL PRODUCTS

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PURE PENN WORM GEAR LUBRICANT—Outstanding lube for all types of worm gears, particularly under heavy duty conditions. Extremely stable, cuts wear to a minimum.

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done this way?*

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Zip-LIFT
HOISTS

No, Miss Victory, it wasn't!

You're one of thousands of women workers who'll never know the drudgery of old-fashioned materials handling methods—the fatiguing work this job formerly involved. Your Zip-Lift Hoist was installed to provide the simplest, safest way of lifting heavy parts on and off machine tools. Without it, this would be a back-breaking job—that's sure!

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Available in 250, 500, 1000 and 2000 lbs. capacities. Plugs in on any standard lighting circuit.



A new star has been added to P&H's award for excellence in war production.

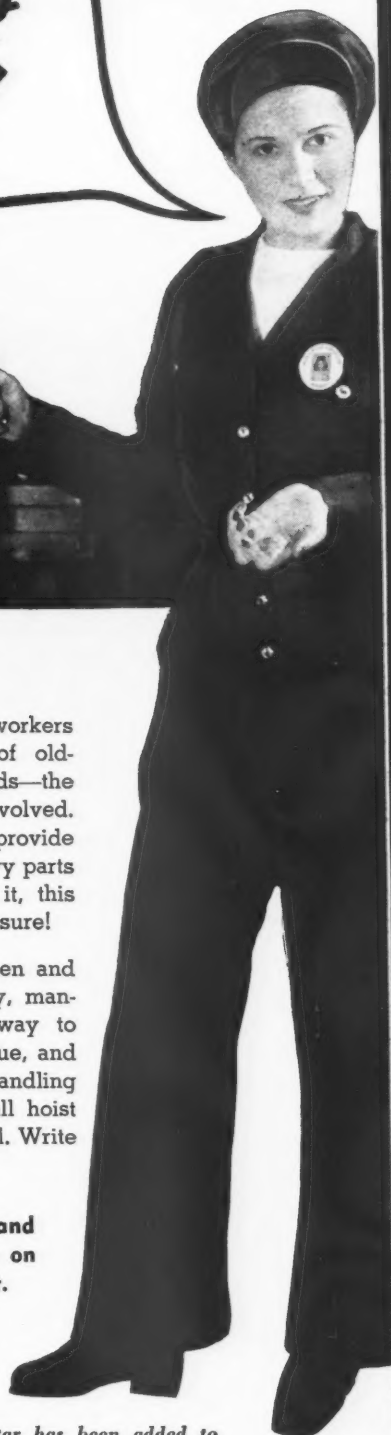
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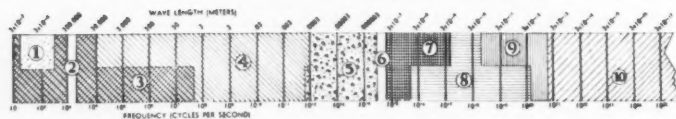
Our "Boys" have been carefully prepared to defend the cause of the American Way of Life on the battlefields of the world. We on the Home Front must be prepared to serve their every need—on time.

We must not let them down.

Availability of the supplies you require to produce for war often controls your ability to deliver on time.

We have made a successful, determined effort to assemble for you, the broadest range of stocks available through any one organization west of Chicago.

Here are a few of the more than 500 manufacturers of Electronic and Electric Equipment, Supplies, and Tools whose products, covering the full frequency range of the Electro-magnetic Spectrum, are available for immediate delivery from stock.



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BUSSMAN
Fuses, Fuse-trons, Fuse-stats
CENTURY
Motors, Generators,
Motor Generator Sets
CUTLER-HAMMER
Switches, Circuit Breakers,
Motor Controls, Panel Boards
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Bells, Buzzers, Annunciators,
Signaling Devices
FEDERAL
Industrial Horns, Sirens,
Air Horns, Air Raid Sirens
FIBERGLAS
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Treated and Untreated
HOBBS
Storage Batteries
IDEAL
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RUSSELL AND STOLL
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SIMPLEX
Tirex Cord, Varished Cambric,
Paper and Plastic Wire and Cable
WALKER DUCT
Conduit, Loom, Flex, etc.

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WESTINGHOUSE
"Tuffernell" Insulating Materials
HALICRAFTERS
Communications Receivers,
Direction Finders
RCA
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SHURE
Microphones and Public Address
Accessories

3—INDUCTION HEATING

RCA
WESTINGHOUSE

4—RADIO

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CORNELL-DUBILIER
Receiving and Transmitting
Condensers
CORWICO
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G-H
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IRC
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Resistors, Rheostats
OHMITE
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RCA
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Photo Tubes
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OF PORTLAND, OREGON

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Albina hellships (subchasers) are the fastest, cockiest, fightingest war craft afloat. They are a big part of America's answer to the Axis Submarine menace; and the submarine menace is the greatest problem of the war.

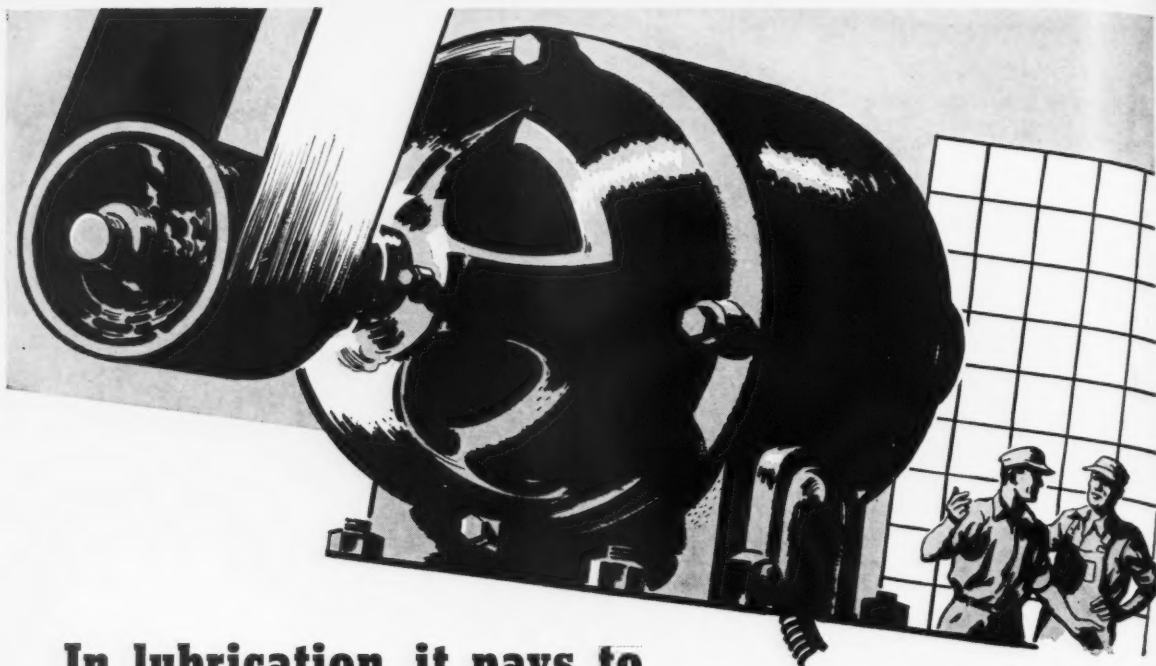
Albina hellships are sinking subs on the seven seas. Among the more famed Albina-built hellships are:

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Hell Howler
Hell Hornet
Hell Horrific
Hell Hurricane
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Hell Holocaust
Hell Hinges
Hell Hyena*

*Hell Hi-Ho
Hell Hypo
Hell Horrendous
Hell Hottentot
Hell-a-Plenty
Hell for Goering
Hell for Mussolini
Hell for Hitler
Hell for Hirobito*

*Hell Horror
Hell Horse
Hell Hussy
Hell Hunter
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Hell Hound
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In lubrication, it pays to **BE SPECIFIC!**

In war, you wouldn't send the Quartermaster to raid an airbase, nor trust the feeding of a division to a Commando. Just so, in your own battle against wear and breakdowns of irreplaceable machines, your surest protection lies in lubricants formulated to do specific jobs.

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Lubrication Engineer — without obligation — whenever his expert counsel can be of help.

FREE LUBRICATION CHARTS

Guesswork, and inadvertent overlooking of a vital part, may be supremely costly today. Play safe. Obtain and use Associated charts for every lube job on either gasoline or Diesel powered trucks and tractors. They're FREE, from your nearest Associated representative.

Depend on these and other **ASSOCIATED PRODUCTS**

CYCOL STEAM CYLINDER OILS
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AERO BATTERIES . . . FISK TIRES
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Let's get ASSOCIATED

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Oil is Ammunition—Use it Wisely!



THOMAS

"JOB-SUITED" TRUCKS

ANY
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plus

ANY
SUPER

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A "Job-
Suited" Truck



A brand new idea to make easier the selection of the right truck for any job

Now due to the Thomas new "Job-Suited" development—even under war restrictions—you can select any Thomas chassis (there are over 20 basic models in many sizes still available) then select any one of the more than 1000 Thomas superstructures. They fit!

And the combination of the two will result in a "Job-Suited" truck that will handle your particular load more efficiently at less cost. Thomas' new folder 43W tells all about it.

Send for
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Series 3400

Hardwood Frame Non-tilt truck for inclines or level floors. War model furnished with smooth metal wheels, otherwise no change. Shown with type A removable superstructure. All superstructures illustrated, and many others, fit it. Write for folder 43W. Representatives in principal cities. Consult phone book.

- Frame: Heavy 2" thick hardwood plank
- Deck: Smooth, seasoned 1" hardwood
- Round corners: Heavy steel pockets
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- Ten standard platform sizes in 3400

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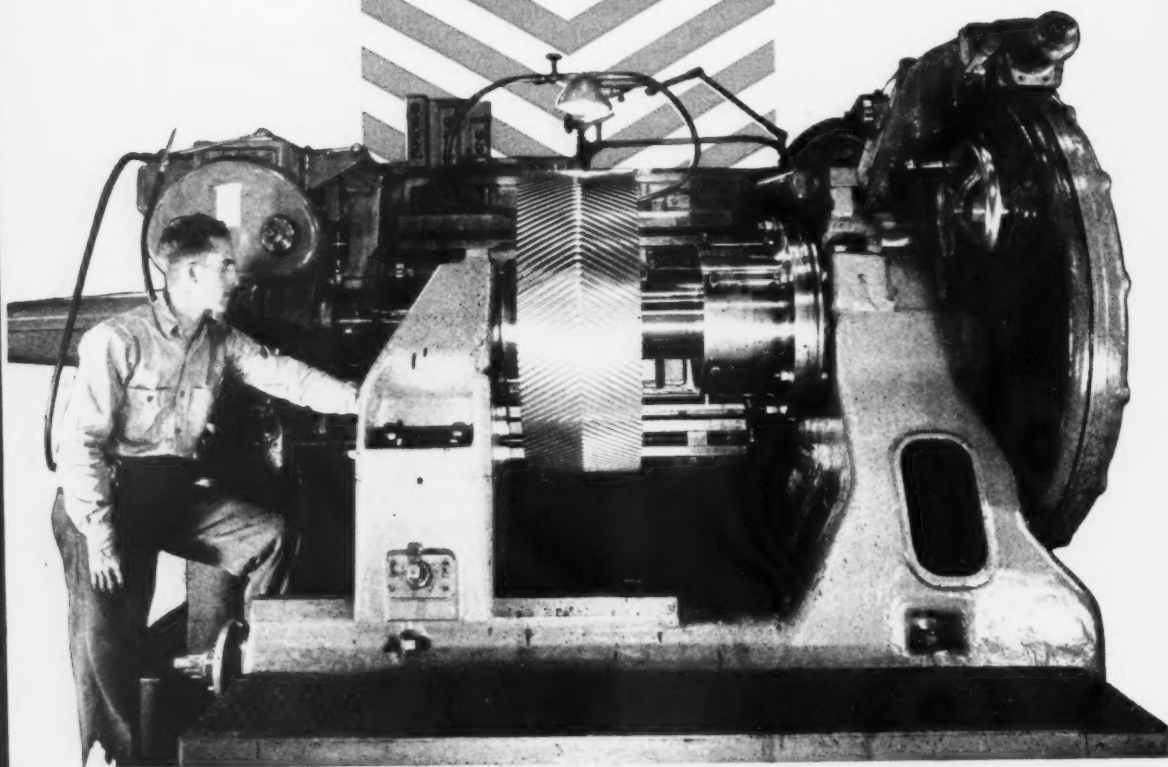
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Spotlight

on the NEWS

WESTERN INDUSTRY
FOR AUGUST, 1943

VOLUME VIII

NUMBER 8

Northwest Governors' Bloc

Governors of five Pacific Northwest states have organized themselves as the Northwest States Development Association, pledged to promote by compacts the water and other resources of the Columbia River basin and mutually to protect their respective state's rights against federal encroachment. Governor C. A. Bottolfsen of Idaho is chairman, Earl Snell of Oregon vice-chairman. The others are Lester Hunt of Wyoming, Sam C. Ford of Montana and Arthur Langlie of Washington. James Spofford, Idaho reclamation engineer, will act as secretary.

Western Plants in Lead

"Small manufacturers" in Pacific Coast states lead the nation in the percentage volume of plants in war production, with 69 per cent of small plant capacity working on war output, according to an OWI survey.

This West Coast percentage ranks just above the 68 per cent plant utilization record of the Great Lakes manufacturing region, the 53 per cent of the plants situated in the Northeastern states (New England and New York area) and the 49 per cent for the rest of the country. More than 1,000 sub-contracts totaling over 43 million dollars were placed with "small manufacturers" in the Western states.

Another Sponge Iron Deal

Permission to build a 50-ton sponge iron smelter at Columbia City, Oregon, is being sought of the War Production Board by a group of Scappoose property owners, headed by A. A. Muck of Portland. He is quoted as saying that the U. S. Bureau of

Mines had blocked out 4,500,000 tons of high-grade hematite or limonite ore in the Scappoose Range in 1942, and that the ore would be mined a short distance from Scappoose and shipped by rail to Columbia City, where deep water shipping facilities can be set up.

Plan Helicopter Service

Establishment of a helicopter air mail and express service linking 46 Southern California cities with transcontinental lines operating out of the Lockheed Air Terminal at Burbank is proposed in a Southwest Airways franchise application filed at Washington. Plans call for landing the helicopters on the roofs of buildings, on vacant lots and other cleared areas, usually within a quarter of a mile of the postoffice. Between the Los Angeles Terminal Annex postoffice and the Lockheed Air Terminal, the trip would require 12 minutes as compared with the normal 50 minutes required by mail truck.

Employment Levels Off

Manufacturing employment in California has begun to level off slightly. The first break in the upward trend since December 1941 was reported for May by M. I. Gershenson, principal statistician for the Division of Labor Statistics, the total dropping to 862,900 from 864,000 in April, but still 43 per cent above the total of 604,700 in May 1942.

The decline was due to the fact that reduced employment in canning was not offset by increases in durable goods plants. Total wage payments to factory workers increased to a new high, however, of more than \$45,000,000 a week, 68 per cent above a year ago. The number of wage earners in the transportation equipment

industries group, which includes aircraft, shipbuilding and miscellaneous industries, increased to 513,900 in May from 512,700 in April, but remained below the peak of 514,900 reached in March of this year. Wage earners in this group in May constituted nearly 60 per cent of all industrial production workers in the state.

Weekly earnings averaged \$52.60 in May, nearly \$1 per week more than in April, and average hourly earnings \$1.159, as against \$1.138 in April.

Branch Plants For Boeing

Boeing Aircraft Company is establishing branch parts plants in several cities in order to take advantage of manpower not now available in Seattle. First of the new plants will be Aberdeen, employing 750 people. More than \$77,000,000 in wages was paid out by Boeing in its Seattle and Renton plants in 1942.

Need for more labor at Boeing plants where production of Flying Fortresses is behind schedule has resulted in cancellation of army contracts to small manufacturers in the area, according to Joseph Keenan, vice-chairman of the WPB. A. F. Hardy, War Manpower Commission area director, felt it would not result in workers taking jobs at Boeing, where wages had been stabilized below the average for the area.

West Will Lead in Tankers

Pacific Coast shipyards will construct more than 50 per cent of the country's tankers from now on. Participating yards include Marin Shipyards, Sausalito, Calif., California Shipbuilding Corporation, Wilmington, Calif., and Oregon Shipbuilding Corporation, Portland.

Air Cargoes must be speeded at the ports



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Renegotiation Clarified At San Francisco Meeting

**Price Adjustment Board Representatives Explain Outstanding Points
At Issue in New Federal Statute Limiting Profits on War Contracts**

Signal service in explaining the application of renegotiation of war contracts was performed for industry in the West when representatives of the armed services participated in an open forum on the subject at the annual meeting of the California Society of Certified Public Accountants in San Francisco June 19.

This is the first time any of the price adjustment boards, at least in the West, have made specific public explanations of just what you can do and can't do under the price adjustment law enacted by Congress in an endeavor to keep war costs down and prevent excessive profits. Consequently the open forum proved to be of great assistance in clearing up doubts and uncertainties in the minds of those who have had to depend entirely upon government bulletins.

The purpose of the act is to protect the government and at the same time leave a reasonable return to the contractor. Because of the impossibility of accurately determining production costs on emergency work beforehand, contracts usually have a wide profit allowance to protect the contractor. Many firms make voluntary adjustments as soon as the actual costs are known and the contracting government officers police all contracts to keep track of

costs on each job. The function of the price adjustment boards is to analyze all of the war business done by each contractor as a whole in a given year, and then determine whether he has made more than a reasonable profit for his year's work on his government contracts.

Outstanding points regarding renegotiation were dealt with in the accompanying series of questions and answers. They were prepared by members of the price adjustment board of the San Francisco Ordnance District, who also recently explained the general purpose and operation of the renegotiation method for the public at large in a radio public events program. Additional questions on minor details were submitted by members of the CPA Society and answered by some of the government representatives. The chairman of the open forum was Charles C. Bowen of San Francisco, a CPA who formerly was a regional board member for the army engineers and is now an expert consultant for the Quartermaster Corps.

The make-up of the open forum panel was a good indication of the fact that renegotiation is being administered by men of long experience in business. A list of those taking part appears on following page.

QUESTION 1 (Mr. Mulvany): How can a contractor recover the cost of permanent capital additions for the manufacture of war products or materials, when these capital additions are not covered by Certificates of Necessity?

Answer: In the absence of a Certificate of Necessity, such facilities are depreciated by both the Bureau of Internal Revenue and the Price Adjustment Sections, at the ordinary rates of depreciation for corresponding property. However, the demands of war products frequently require the use of facilities for extraordinary consecutive periods in day and night shift work, and under these circumstances both the Bureau and the Price Adjustment Section allows depreciation on machinery, but not on buildings, at higher rates.

Question 2 (Major Mattison): Will a Price Adjustment Board allow as costs, the same costs which are allowed by the

Internal Revenue Department in consideration of income and excess profits taxes?

Answer: The Renegotiation Act provides, in effect, that Price Adjustment Boards shall recognize applicable exclusions and deductions of the same character which are allowed to a contractor or subcontractor under Chapter 1 and Chapter 2E of the Internal Revenue Code. However, this does not mean that a Price Adjustment Board must necessarily follow the rulings of the Internal Revenue Bureau in its determination as to whether or not the amount of such exclusions and deductions are reasonable. In other words, the Price Adjustment Board must examine into the facts and determine for itself, realistically whether or not such exclusions and deductions as the contractor has set up, are actually fair and reasonable.

Question 3 (Mr. Eddy): Can a Price

Adjustment Board allow a cost in a larger percentage or amount than is allowed by the Internal Revenue Bureau?

Answer: Yes, but only in those exceptional cases where it appears that such allowance is reasonable, and where failure to grant same would result in gross inequity.

Question 4 (Mr. Wheeler): Does a Price Adjustment Board examine salaries, bonuses, employee plans and other employment compensation items?

Answer: Yes. Sharp increases in salaries, bonuses or other compensation items, in and of themselves, indicate the existence of excessive profits. The Renegotiation Act specifically provides that no allowances shall be made for any salaries, bonuses or other compensations paid by the contractor to its officers or employees in excess of a reasonable amount.

Question 5 (Mr. Mulvany): Is inven-

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Question 5 (Mr. Mulvany): Is inven-

tory write-off on commercial business considered as an element of cost in war contracts?

Answer: No. Such charges are not allowed as costs on war contracts.

Question 6 (Mr. Anderson): Are costs of conversion from peace time to war time productions, considered in renegotiation as an element of cost in war contracts?

Answer: Such costs are allowed to the same extent as allowed under the Internal Revenue Code. However, in exceptional cases, they may be allowed to a larger extent than under the provisions of the Internal Revenue Code, but only when the reasonableness of such allowance is clearly established.

Question 7 (Mr. Wheeler): Are reserves for post war reconversions to peace time production allowed as an element of cost in war contracts?

Answer: Such reserves are not allowed as an element of cost on war contracts. Expenses of reconversion and many other problems of post war readjustment will be common to most industries, and the Price Adjustment Board has not been given authority to allow provision therefor through the accumulation of excessive profits derived from war contracts. Furthermore, any such allowance would involve a prediction as to the length of the war—conjecture as to the necessity or advisability of conversion on the termination of the war, and other uncertain considerations which would make any such allowances entirely speculative. Of course, provision in the Internal Revenue Code for post war tax credits on excess profits is a step towards the solution of the problem of post war reconversion.

Question 8 (Mr. Mulvany): Is the amount of allowable profits determined on the basis of a fixed ratio of net profits to total sales?

Answer: It would be grossly unfair to most industries to establish allowable profits on any such basis. Any attempt at a set formula is unsound because of the wide variation among contractors in the extent of their individual contributions to the war effort. One contractor may have risked his own capital 100 per cent, while another may have been financed entirely by government funds; one contractor may be an efficient low-cost producer, whereas another—manufacturing the same item—may be wasteful in the extreme.

Furthermore, there are great variations in the technical skill and engineering ability required. Many contracts call for the manufacture of simple items in large volume, whereas others cover complicated mechanisms where extreme accuracy is essential. Therefore, the margin of allowed profit may be adjusted—upward or downward—in such manner as to reflect careful consideration of all these factors. It would be grossly unfair to ignore them and

to set up a definite percentage of profits applicable to all cases. It is the duty of the Price Adjustment Board to examine each case on its own merits.

Question 9 (Mr. Eddy): Is the amount of allowable profits determined on the basis of a fixed ratio of net profits to net worth or capital investment?

Answer: Allowable profits are not established on any such basis. There can be no

Renegotiation Forum Panel

San Francisco Ordnance District price adjustment board: Kenneth L. Stedman, chairman, formerly a well known manufacturer's representative in San Francisco; Charles S. Wheeler, Jr., corporation attorney; Robert Mulvany, director of the San Francisco Stock Exchange and security house member.

Army Air Force: Major E. A. Mattison, chief, price adjustment section, Western Procurement District, formerly assistant to the president, Bank of America.

Signal Corps: Howard Eddy, assistant supervisor, Signal Corps cost analysis agency, in charge of territory from Denver west, formerly with General Motors Corporation.

Army Engineers: Lester V. Anderson, engineers renegotiation board, formerly executive secretary of a contractors' association in Chicago.

Navy Department adjustment board: M. A. Gunst, formerly with Capital Corporation, San Francisco; Lieut. Commander Lawrence Hicks, formerly with Price, Waterhouse & Co., certified public accountants, San Francisco.

fixed proper ratio of net profits to net worth or capital investment. Ratio of net profits to net worth is merely one of the elements which must be considered in the determination of what constitutes excessive profits. Obviously, the risk involved in private investment is ordinarily more substantial than where Government facilities or Government money is used; and the contractor who risks his own capital is entitled to compensation for that risk. Furthermore, by allowing such a contractor to retain a greater reward than would be allowed to a contractor using Government-owned facilities is sound policy since, in this way, use of private capital in war work is encouraged.

Incidentally, it should perhaps be pointed out that money borrowed by a contractor, either from the Government, on V loans, or some other source—which represents an unconditional obligation of the contractor to repay—will be treated in renegotiation under the same basis as the contractor's own funds, when borrowed for use in the performance of war contracts.

Question 10 (Mr. Anderson): Where a contractor does business in large volume and a portion or all of his sales are on purchase orders which are not identified as to the "end use" of the materials sold, how can such contractor

establish what volume of such sales should be included as war subcontracts for purposes of renegotiation?

Answer: In such instances, the contractor will only be required to make as extensive an investigation of the "end use" of the products sold as is reasonably possible in the circumstances. A spot check among customers will frequently indicate the overall percentages of war business covered by such sales.

Question 11 (Mr. Mulvany): In determining what amount of excessive profits are to be eliminated, is credit allowed the contractor for Federal Income and Excess Profits Taxes paid or payable thereon?

Answer: The Renegotiation Act allows such credits under the provisions of Section 3806 of the Internal Revenue Code. This section should be referred to whenever the problem of the tax credit arises. It should be clearly noted that the Federal Income and Excess Profits taxes are not allowed as a deduction in determining the existence or the amount of excessive profits; but after this question has been decided, any such taxes, in respect to such excessive profits, are allowed as a credit in the determination of what amount of excessive profits remain to be eliminated.

Question 12 (Mr. Eddy): If, on renegotiation, it is determined that excessive profits have been realized by the contractor from war contracts, how are they eliminated?

Answer: The Renegotiation Act provides that excessive profits shall be eliminated by reductions in contract prices or by withholding, from amounts otherwise due the contractor, the amount of such excessive profits. These provisions, however, apply only to cases where the renegotiation occurs before the end of the current fiscal year under review. When the renegotiation covers a past and closed fiscal year, the recovery of excessive profits is by way of refund or credits on future deliveries.

Question 13 (Mr. Wheeler): How does the Statute of Limitations operate in relation to renegotiation and the determination of excessive profits?

Answer: The Renegotiation Act expressly provides that the renegotiation of the prices stipulated in any contract may be commenced within one year after the close of the fiscal year in which the contract was completed or terminated. This provision applies to all contracts and subcontracts whether or not they contain the Renegotiation Clause. For example, contracts outstanding in 1942 which are subject to renegotiation. Suppose, further, that two of these contracts were completed or terminated in 1942, but renegotiation for 1942 is not started until 1944. Under these circumstances, these two completed or terminated contracts would be out and the renegotiation for 1942 would be confined

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to those contracts which had not been completed in that year. This Statute of Limitations is self-executing but it only provides for the piece-meal elimination of contracts from renegotiation.

However, there is another Statute of Limitations in the Act which the contractor himself may put into motion, and which operates as a bar to renegotiation of all of the war business done by a contractor in a given fiscal year. The contractor may file with the Department concerned a financial statement for any prior fiscal year in a form prescribed by the Department, and such Department has one year thereafter within which to give the contractor notice of renegotiation; and renegotiation must start within 60 days thereafter, or the liability of the contractor for excessive profits (if any) which it may have realized during such year, will be discharged.

Question 14 (Major Mattison): Are Cost-Plus-Fixed-Fee contracts renegotiable? And, if so, on what basis?

Answer: Such contracts are renegotiable but they are considered separately from other contracts. In other words, when a contractor is being renegotiated for a given fiscal year and it develops that he has both Fixed-Price contracts, as well as Cost-Plus-

Fixed-Fee contracts, both types of contracts are renegotiated but the determination of the over-all profit to which he is entitled on his Fixed-Price contracts is governed by entirely different principles than those considered in connection with Cost-Plus-Fixed-Fee contracts, where the Government pays the cost and the contractor has no such risk. Therefore, they must be considered separately.

Question 15 (Mr. Wheeler): Can a Board allow as a cost, California State Franchise Taxes with respect to amounts refunded as excessive profits?

Answer: Yes, upon the following conditions:

Where such State tax has been paid prior to the date of renegotiation, the contractor must file a claim for refund with the State Franchise Tax Commissioner with respect thereto and pay over any amount recovered on such claim to the United States Treasury. On the other hand, where the franchise tax has accrued and is unpaid as of the date of renegotiation, the contractor must make a determination of the amount of reduction in liability with respect to such tax, and remit such amount to the United States Treasury.

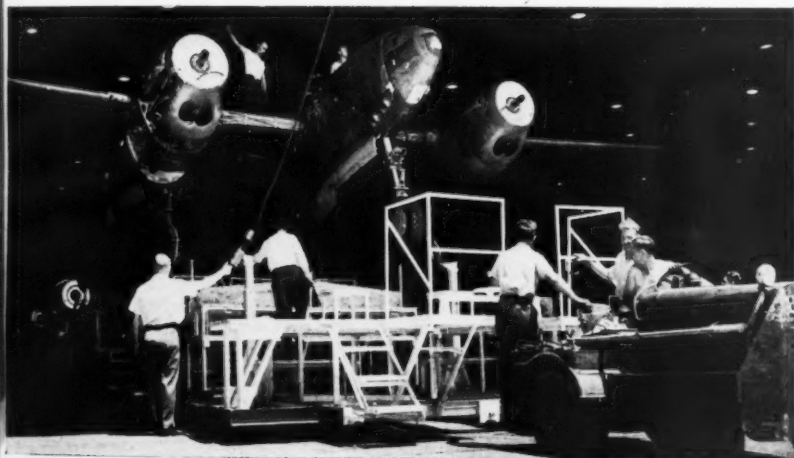
Question 16 (Mr. Eddy): Can a Price

Adjustment Board permit the accrual of franchise taxes based upon income in the year in which the income is earned, even though the year in which the taxes are payable is a later year, as in the case of California State Franchise Tax?

Answer: Yes, this can be done. However, it should be noted that, as this would result in a double accrual this year, the properly applicable amount of the 1943 tax (based on 1942 income) should be allowed as a cost to production in 1942, whereas the taxes paid in 1942 (based on 1941 income) should be eliminated from cost for the purposes of renegotiation.

EDITOR'S NOTE: *This forum was the first meeting where all regional boards and sections have been represented, and its success was largely due to the fact that a high type of personnel has been recruited for this important work.*

Lieut. Marion L. Kellogg, regional head of the Quartermaster Corps price adjustment section, did not participate, due to the fact that the Quartermaster Corps had not yet completed its organization. Since the meeting, however, he has made good progress in appointment of a number of well known and experienced business men as negotiators and accountants.



• Automobile assembly line method adapted by Lockheed to aircraft production at Burbank, California, factory. Moving continuously on chain conveyor at four inch per minute speed, the daily output of Lightning P-38 fighters doubled, a 40% man-hour reduction on each plane. In this scene a Lightning is coming off the line ready for camouflaging in paint hangar.

• How wood is replacing steel is demonstrated in Northwest Chair Co., Tacoma, where wooden truck bodies are substituted for metal, utilizing Washington fir and cottonwood, with mid-west oak. Army officers and J. H. Gilpin, president and manager of Northwest Chair Company, watch soldiers installing one of these bodies on an army truck chassis.





• Supervised care of children makes it possible to clip a little time off that 96-hour week.

NURSERIES — Hold Mothers on War Jobs

Ogden Arsenal Typical Example of Preventing the Loss of This Supply of Womanpower Needed to Keep Industrial Plants Running

CAN THE working mothers take it—or are they taxing themselves beyond their physical capacity? Will industry see its potential supply of workers suddenly evaporate?

The replacement of drafted men workers with women, many of whom are mothers, is not simply the matter of replacing one worker with another. Most of the women are not merely giving up one job to take on another, but are taking on a defense plant job in addition to the one they already have, that of taking care of their children and maintaining their home.

Management is beginning to realize that something must be done to lighten the former job of the working mother so that she may continue in her new job at the defense plants. For many women, after 8 or 10 months of continuous work, find themselves too weary to continue working at the defense plants. Almost with an apology they ask for separation from service so they may return home to take care of their children. In many instances they

should be encouraged to do so, yet each woman who does, is just one less defense worker.

In order to keep the working mother's job from becoming too burdensome, nursery schools come into the picture, not as a luxury, but as a necessity. It is a relief to the working mother to know that her children are receiving adequate care during her absence. By maintaining a nursery school, management can not only lighten the load the working mother carries, but also help insure themselves of their supply of women workers.

One of the places where this is being done is at the Ogden Arsenal, Ogden, Utah. They opened a day nursery at Layton, Utah, for 35 children between the ages of 2 and 6 years. After about five months' operation, this nursery was so crowded that new quarters had to be secured, and on April 5 a nursery equipped to give care to about 100 children was opened. Cooperating with officers at the Ogden Arsenal in this larger nursery

school venture are the officers at the Utah Quartermaster Depot.

The officers at Ogden Arsenal are trying to do various other things also to help working mothers conserve their time and strength so they may stay on the job. They have found that the work week of the working mother is not just the 48 hours she works at the defense plant, but more nearly a 96 hour week. Before and after the time she puts in at the defense plant, she must care for her children and perform the numerous household duties necessary to maintaining her home properly.

Rationing has not made her double duties easier either. Much more time must now be spent in meal planning and meal preparation, and to further complicate the food problem, the mother who is a defense plant worker usually reaches the markets at hours when there is little or no meat to be purchased and practically no choice in fresh vegetables. Then too, meals quickly prepared by opening cans are now luxuries of the past.

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Like the days of unrestricted food buying, the days of domestic help are gone also. To find a person to care for a home or a child for an hour, day or week, is practically impossible. Many a mother, conscious of her responsibilities as a defense worker, has left a sick child at home entirely without care, or under the questionable supervision of older brothers or sisters who have remained out of school for that purpose.

What happens to the children between the time the mother leaves home and the children reach school is a matter of uncertainty. It is known that some of the children fail to reach school, some reach school improperly dressed and fed, while others are chronically tardy. After-school activities of children are also questionable.

To further assist working mothers, the Ogden Arsenal has employed on a part-time basis two women who care for small children attending school on a half day basis. One of these centers is operating in the school and the other in the home of the employee who lives within a block of the school the children attend. Indications are that this after school program should be greatly expanded and officials of Ogden and of Davis County are considering the establishment of several before and after school centers.

One of the other problems facing the working mother is laundry. Laundries in operation prior to the establishment of the four defense plants in the Ogden Area are unable, with few exceptions, to take new patrons. New and used washing machines

are not available and many living quarters lack laundry facilities. The Ogden Arsenal Laundry and Dry Cleaning Plant, which does the laundry work required at the Arsenal, has extended its services to employees.

The housing shortage is another problem. This is met in part by the development of defense housing units. Between the time these houses are available and the workers arrive in the community, it is necessary for them to locate suitable living quarters. A staff member of Ogden Arsenal devotes full time to the housing problem and as a result many families have been moved out of damp basements, undesirable trailer camps and substandard dwellings. Adding to the housing shortage problem are the landlords who will not rent to persons with children.

Still another problem is the time that must be spent in procuring ration books, certificates for gasoline, tires and retreads. To help here, the Arsenal established a service for employees which included the issuing of supplementary mileage B and C ration books and No. 2 ration books. A volunteer staff also assisted employees in preparing State and Federal income tax statements.

All these services are especially helpful to mothers, who are accepting conditions with a high degree of patriotic philosophy. In the counties immediately adjacent to the Ogden Arsenal, there is an ever increasing awareness of the needs for services for working mothers. The State and local Departments of Public Welfare



• Many combined hours over the cookstove are saved for the community and the war effort when the nursery kitchen prepares and serves the midday meal for children.

have added special childrens' workers to assist in the development of boarding homes which meet acceptable standards, to supervise day care centers, and to assist in any way possible in helping the mothers solve the problems relating to their children.

As the local communities are in a position to assume these responsibilities, the Ogden Arsenal will gladly relinquish its special programs but will give full cooperation to the local communities in all matters that pertain to the welfare of its employees.

• The mother earning her living in the Ogden Arsenal can keep her mind on the job without worry, knowing that Johnny's nap is duly provided for and Sally has suitable and happy occupation in the playroom that will keep her out of mischief.



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• Aerial View, with a Few of Boulder City's Charming Bungalows Seen in the Foreground

Boulder City Tests On Metals Important...

Nevada Pilot Plant Does Research on Sponge Iron, Electrolytic Manganese and Magnesium

SPONGE IRON tests have been getting most of the publicity about the U. S. Bureau of Mines Experiment Station at Boulder City, Nevada, but important pilot plant work is being done there also on other metals.

These additional undertakings include the preparation of magnesia from dolomite and magnesite, electrolysis of magnesia to produce magnesium, refining manganese by the electrolytic process, matte-smelting of manganese ores, production of alumina from clays, electrowinning of chromium and of cobalt from ores, milling of manganese ores, and chemical beneficiation of chromite.

R. G. Knickerbocker, Supervising Engineer of the station, has a force of technical men and laborers, both skilled and unskilled, on the various projects.

The Bureau's sponge iron investigation is being made on the premise that the blast furnace capacity of the United States is too small to provide enough pig iron for steel production during the war emergency and that the scrap supply is insufficient to fill the balance of the need. Hence the call for sponge iron of a type which can be fed directly into the open hearth for making steel.

It is pointed out that sponge iron is being made in Germany from the lowest grades of ore at the Krupp Works, ore that is only 30 per cent iron, high in silica content and relatively high in sulphur. This is in contrast to ordinary American ore, 50 per cent iron and with but little

silica or sulphur. Swedish cutlery steel is made from sponge iron, but as this is a specialty, the ore is carefully selected.

There are two principal processes for reducing ore into sponge iron—the solid fuel method and the gaseous. The former is being utilized at Boulder City, the latter at Longview, Texas, where the Bureau is cooperating with the Madaras Steel Corporation in the Madaras Cooperative Sponge Iron Project. Most recent reduction tests at Boulder City have been on ore furnished by the Kaiser Corporation from the Vulcan Mine in San Bernardino County, California, which supplies the Kaiser steel mill at Fontana; but Eagle Mountain, California, and Provo, Utah, iron ores also have been tested.

In the ores used thus far at Boulder City neither low iron or high sulphur content has been noted, and it is stated that most of the sulphur in the process is picked up from the reducing agent rather than from the ore itself. Low grade cokes and coals are being used as reducing agents.

The ore is mixed with the coke and coal and fed into a two-diameter rotary kiln, where the ore is pre-heated in the small diameter section. Further elevation of temperature and reduction to sponge iron takes place in the larger diameter, in which a deep bed is maintained because it has been found that concentration of reducing gases is increased with the depth of the bed, giving faster and more nearly perfect reduction.

After discharge from the kiln, the mix-

ture of sponge iron and coke is cooled out of contact with air in a standard Baker cooler. The cooled product is screened and each screen size magnetically concentrated. The magnetic concentrate is sponge iron, containing some sulphur, which can be removed by standard metallurgical means. The desulphurized product is then ready for use as open hearth feed.

Magnesium by Electrolysis of Magnesia From Dolomite or Magnesite

A practically inexhaustible supply of dolomite, 300,000,000 tons, is to be found at Sloan, a few miles south of Las Vegas. If this were to be used by Basic Magnesium, Inc., whose huge plant is between Boulder City and Las Vegas, the transportation of magnesite ore from Luning, hundreds of miles away, would be unnecessary.

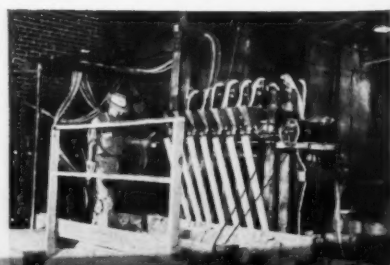
The Bureau's object in testing dolomite is to avoid the necessity of so much chlorine in the electrolytic process and to make use of abundant ores. Work on this project began six months before the BMI undertaking was started, and is under cooperative agreement with U. S. Lime Products Corporation, who own the Sloan dolomite deposits.

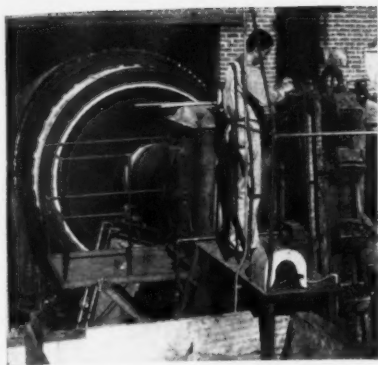
Dolomite, which is an approximately equal mixture of calcium carbonate and magnesium carbonate is calcined and divided into two parts, from one of which magnesium is removed by a liquid solvent and used to replace the calcium in the other. The resulting magnesium hydroxide is washed, filtered, and dried, while the calcium comes out as calcium carbonate. The latter could be used as precipitated chalk or calcined to make pure lime, but is of doubtful commercial value.

The Boulder City station is also doing pilot testing of an acid-leach process for preparing magnesia from magnesite. Essentially it consists of dissolving the ore in hydrochloric acid and purifying and decomposing the pure solutions to give a high grade magnesium oxide which contains some magnesium chloride.

Complete drying of the magnesia is accomplished in a direct-fired rotary kiln, a special feature of this process which is cheaper and permits lower temperatures, and from there the magnesia goes into an indirect-fired kiln for partial chlorination. After that the material goes into the electrolytic cell.

• Magnesium Cell





• Sponge Iron Elevator Bucket Feed

Instead of feeding magnesium chloride to the Bureau's electrolytic cell, as is now done at Basic Magnesium, Inc., the greater portion of the feed is magnesium oxide. This process requires some chlorine at present, but it is hoped the chlorine can be eliminated altogether eventually.

Electrolytic Manganese for New Nickels

Metal for the alloy nickels being manufactured at the San Francisco Mint is produced in another department of the Boulder City station. The plating is done from a solution of manganese sulphate and ammonium sulphate, the function of the latter being to prevent hydrolysis of the manganese. The plating process is carried on for a period of 24 hours.

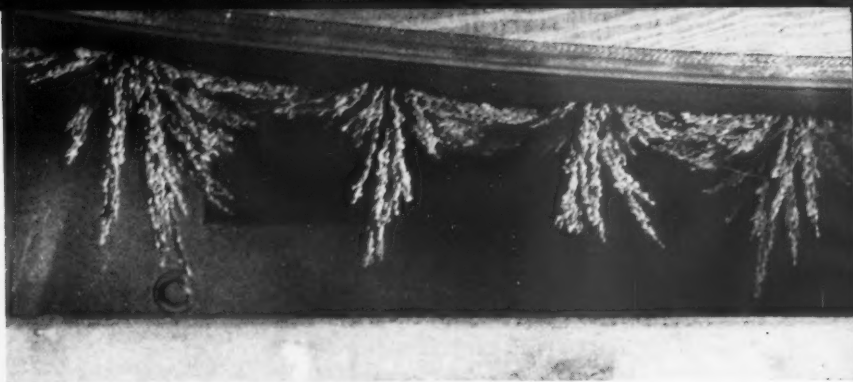
The first step in preparing the electrolyte for electrodeposition of manganese is to put the manganese ore through a jaw crusher and then through a cone crusher and rolls.

After crushing, the ore is mixed with diesel fuel in a screw conveyor and then subjected to external heat in a multi-tube kiln. The burning of the reducing oil takes one of the oxygens from the MnO_2 to reduce it to MnO . Coming out of the multi-tube, the ore drops into a Baker cooler. To prevent re-oxidation, an automatic seal at the end of the cooler prevents the air from entering.

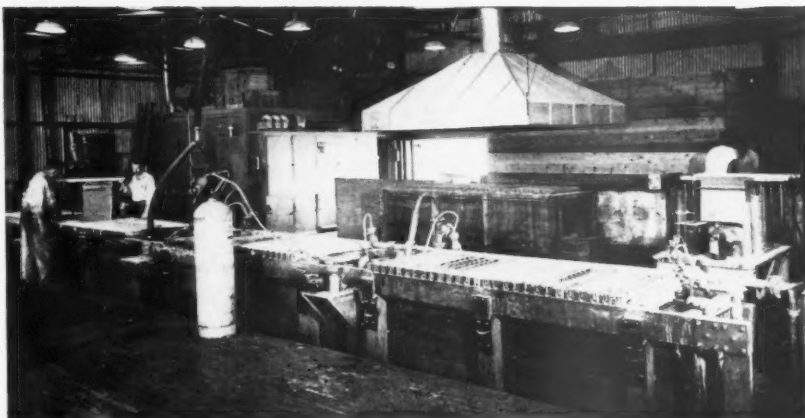
From the cooler the ore passes to the leach tanks, which are equipped with propellers, and baffles to prevent swirling.

Next comes the thickener, after which other metals are precipitated out. Then the solution is filtered and the purified manganese sulphate solution is ready for electrolysis.

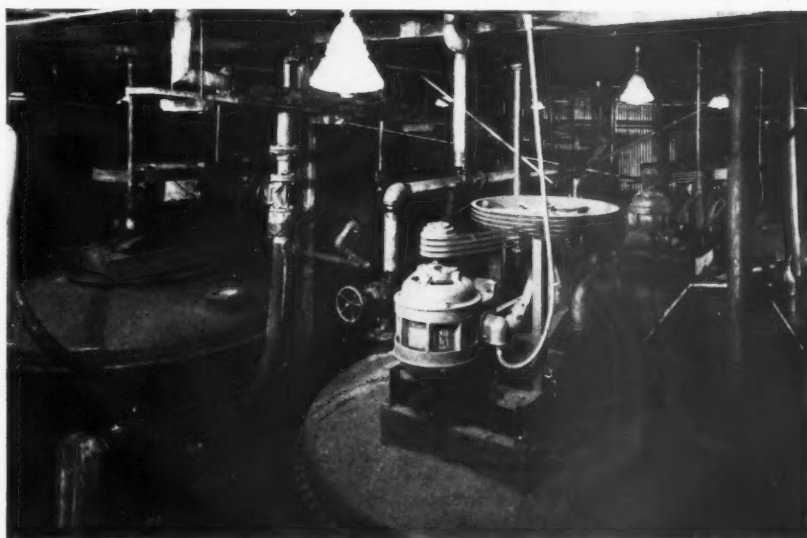
• Disc Filters Remove Impurities



• Detail View, Sponge Iron Magnetic Separator



• Manganese Electrolytic Cell Room



• Leach Tanks for Dissolving Manganese from Roasted Ores for the Preparation of Electrolyte for Electrolytic Manganese Cell Room

• Magnesium Metal Ingots



Shifts Get Longer In Southern California

Absenteeism of Women Diminished by Adopting 10 Hour Day and 50 Hour Week in One Plant

USE of longer shifts in the Southern California area is increasing, because of the shortage of manpower and the pressure of giving the workers a bigger "take-home" check. Out of 109 companies reporting through the Merchants and Manufacturers Association to the Southern California Management Council war production conference on May 29, 17.4 per cent were operating 52 to 55 hours and an equal percentage mixed shifts. The figures are shown in the accompanying tables.

Of particular interest is the fact that North American Aviation, Inc. have found that a 10-hour day and 50-hour week for women in their machine shop has diminished absenteeism, in addition to increasing the female labor force in that department 4 per cent. Women put on this schedule seem very happy with it, according to E. D. Starkweather, director of personnel, and there have been many requests from individual women and groups of women in other departments to be included in such a schedule. Comparative average absenteeism figures are as follows:

	Day Shift	Night Shift
Week previous to institution of 50-hour week	3.12%	2.88%
First week of new schedule	3.65%	(*)
Second week of new schedule	2.7%	1.33%
Third week of new schedule	2.64%	(*)

(*) Figures not available.

A summary of the reports made at the seminar on two-shift vs. three-shift operation, of which John R. Bair of the personnel department of Thompson Products, Inc., was chairman, is as follows:

BAKEWELL MANUFACTURING CO. J. H. Sullivan, personnel director: Plant manufactures aircraft parts, hydraulic units, machine tools, operates five days, day shift

10 hours, night shift 12 hours (as result of vote of night shift). Both shifts paid same hourly rate, with bonus to night shift of payment for lunch period of 30 minutes. Some fatigue difficulty encountered in drill press department, met by interchange of drill press operators and some of the burr bench hands. Advantages to BAKEWELL are longer hours for employees resulting in overtime pay in lieu of raises in rates forbidden by freeze order, less time lost in changing of shifts and resulting loss of production from cleaning of machines by quitting shifts and starting of machines by incoming shifts.

GAY ENGINEERING CORPORATION. Engineers and Contractors, Edgar Mason:

FIVE-DAY WEEK

Two 10-hour shifts *net* 100 hours per week
at \$1.00 per hour *costs* \$100.00 per week
or \$1.10 per hour.

SIX-DAY WEEK

Three 8-hour shifts *net* 135 hours per week
at \$1.00 per hour *costs* \$156.00 per week
or \$1.15 per hour.

SIX-DAY WEEK

Two 10-hour shifts *net* 120 hours per week
at \$1.00 per hour *costs* \$140.00 per week
or \$1.16 per hour.

Actual cost per hour favors two 10-hour five-day shifts, because third shift usually 6½ hours duration at eight hours pay. Also poor sleeping conditions for the workers on third shift if more than one member of the family is working. Three shifts require additional supervision, and transportation coordination more difficult, particularly with women.

THOMPSON PRODUCTS, INC. West Coast Plant. C. L. Millman, personnel manager: Change to longer hours should be discussed with employees or their bargaining agency first. Our seat welders, working 10-hour shifts, rebelling because

of long hours, prefer to revert to three 8-hour shifts.

POULSEN AND NARDON, George A. Griffith, personnel manager: 10-hour shifts provide for cutting down one shift of training inexperienced employees, reducing this problem at least 33 1/3 per cent, require only two shifts of supervision.

Where employees assigned to machines, experience indicates two men can work together better than three.

Less wear on the machines resetting for each employee; reduces these adjustments 33 1/3 per cent.

Procurement of new or additional employees approximately 33 1/3 per cent less.

"Take-home" pay of each employee greater on the 60-hour week of six 10-hour days.

Reduces problems of transportation, rubber, gasoline rationing, office work and payroll bookkeeping, seniority, turnover, absenteeism, food and cafeteria problems approximately 33 1/3 per cent.

Foremen, including leadmen, under less pressure.

Machined parts will come up to more rigid inspection with less scrap. Detection of an employee running scrap can be more quickly determined.

Under 60-hour week where employee is paid for 70 hours, he is, in all probability, receiving equal to highest rate of take-home pay for classification of work to which he is assigned. Therefore, less inclined to go job-shopping at other plants working 48-hour week. Because of larger earnings, also less inclined to be discontented and become an agitator in the plant.

Each employee can have the same day off for rest and recreation.

Reduces cost of labor charged to each job and/or contract, both in production workers and supervision.

Selective Service problem reduced 33 1/3 per cent.

The more take-home money the employees have, the more weekly earnings can be expended for bonds, etc., without reducing his standard of living.

Merit upgrading reduced one shift.

F. D. WALLACE & ASSOCIATES, Industrial Relations and Management Engineers: Experience of Southern California shipyards varied. One old-line organization, on 10-hour basis two years, considers it gives smaller total number of employees larger "take-home" for the individual, reduced problems of training, transportation, supervision, recruitment. No other yards changed over officially, except for short periods in departments where production behind schedule. Union turned one yard down because 10 hours would not increase production, but would increase physical strain on employees and decrease utilization of machinery.

(Continued on Page 28)

Working Hours in Southern California Plants

Weekly Hours Worked	40 to 44	45 to 48	49 to 52	53 to 56	57 to 60	Mixed Shifts
5 Airframe Companies	..	..	4	1	..	1
47 Aircraft Parts Companies	1	3	30	4	9	1
1 Shipbuilding Company	..	..	1	..	..	..
4 Foundries	..	1	2	..	..	1
3 Rubber Companies	..	1	2	..	..	..
19 Steel Fabricating Companies	..	1	11	1	5	2
5 Oil Companies	1	..	4	..	..	..
9 Building Materials and Supplies Companies	3	..	4	..	3	1
2 Transportation Companies	..	..	1	1	..	1
7 Food Distribution Companies	3	..	4	..	1	1
7 Banks & Office Whse. Houses	2	1	4	..	1	1
109 TOTAL	9	7	65	7	19	19
Per Cent	8.2	6.4	59.6	6.4	17.4	17.4



Why We Are Advertising Now

Surely, not to get more immediate business. Our entire facilities are devoted solely to the war effort. Our combined engineering experience and production ability is centered on one objective:... winning the war.

For decades the names Hendy, Pomona and Crocker-Wheeler have been familiar to you. That these names may be kept fresh in your mind until the war is won and we can again solicit your business, is the reason we're advertising now... telling you about our facilities, the products we're making, the personnel of the Hendy organization and such other things as we can publish without jeopardizing the war effort.



THE IRON MEN OF HENDY

...are now producing marine steam engines, steam turbines, and reduction gears; electric motors, fractional to 10,000 h.p.; generators, 3 to 7,500 KW; hydraulic pumps with capacities from 50 to 6 million gallons per hour... all exclusively for the war effort.

JOSHUA HENDY IRON WORKS

ESTABLISHED 1856

SUNNYVALE • CALIFORNIA

Divisions: POMONA PUMP COMPANY
CROCKER-WHEELER ELECTRIC MFG CO



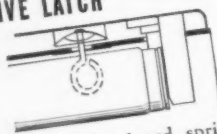
Manufacturing Plants: SUNNYVALE, LONG BEACH, POMONA and TORRANCE in CALIFORNIA • AMPERE, N. J. • ST. LOUIS, MO.
Branch Offices: NEW YORK • WASHINGTON • PHILADELPHIA
PITTSBURGH • CHICAGO • ST. LOUIS • SAN FRANCISCO • LOS ANGELES

SYLVANIA

Challenges



EXCLUSIVE "CAPTIVE LATCH"



This Sylvania-developed spring-type fastener saves installation and maintenance man-hours. It stays put while lamp is in service despite any kind of vibration. It locks or unlocks with a simple quarter turn. No tools are necessary.

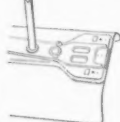
HANG IT ANY WAY YOU WANT



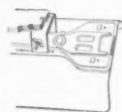
slide-grip hanger



chain mounting



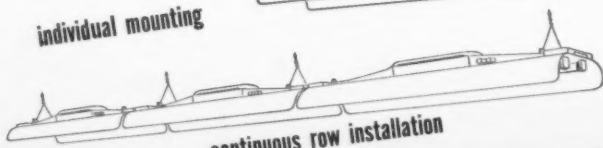
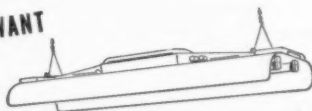
stem mounting



surface mounting

AND HOWEVER YOU WANT

individual mounting



continuous row installation

MORE LIGHT FROM LESS WEIGHT

Sylvania pioneered composition reflectors for fluorescent fixtures and "proved them in industry."

This composition reflector has an efficiency of 86 per cent — even higher than that of prewar porcelain-enameled metal in conventional contours.

It is fabricated to Sylvania's specifications from a strong and durable composition. Coated with MIRACOAT inside and a handsome French Gray outside, it stands up under extreme humidity and temperature conditions.

- ✓ Impervious to frequent washings.
- ✓ Gives more light.
- ✓ Lighter and easier to handle.

Comparison

Check these points of Superiority

- ✓ Easier installation
- ✓ Speedier maintenance
- ✓ Cantilever construction
- ✓ Simple design
- ✓ Standard interchangeable parts
- ✓ Enclosed ballasts
- ✓ Single or continuous row hanging



The Fixture of the Future against the field

● Compare the design and construction of the Sylvania Fixture of the Future with any other fixture now available, and it wins hands down.

It is much more than a design to eliminate the metallic reflector and cut down top-housing weight to the three-pound requirement. Sylvania engineers attained a new standard of perfection, far ahead of its time.

A revelation of simplicity, this new Sylvania fixture is available in both 100-watt and 40-watt lamp size. In either length, *one* standard fixture fills any and all industrial lighting assignments.

Unparalleled in adaptability, it may be installed in-

dividually or in continuous rows. It is fitted with knock-outs for any practical mounting. The optional number of lamps in the regular 40-watt size gives new flexibility in meeting varying foot-candle requirements.

The streamlined top-housing, constructed like a cantilever bridge, encloses the ballast — protects it from dust — provides cooler performance. The starter sockets are honestly accessible — inset from the side to avoid dust, dirt and moisture. Pull-chain switch is optional.

The Sylvania Fixture of the Future carries Underwriters' Laboratories approval and our own standard guarantee. For specifications and prices, write Dept. WI-8, Sylvania, Ipswich, Mass.

"Everything that's Finest in Fluorescent"

★ ★ SYLVANIA ELECTRIC PRODUCTS INC.
LIGHTING DIVISION, IPSWICH, MASS.

ACCESSORIES, RADIO TUBES, ELECTRONIC DEVICES

LONGER SHIFTS (Cont'd from Pg. 24)

Findlay A. Carter, CALIFORNIA SHIP-BUILDING CORPORATION: Operated two 10-hour shifts in some departments for six weeks. Long hours tended to break down morale of the men, accident and sickness rate increased. Many of the men liked the idea of more money at first but were glad to return to shorter hours later on. Production showed upswing at start, but later dropped off and decline indicated continuance would seriously hamper production. End of shift drop off much greater for 10-hour shift. No great exodus from Bethlehem where 10-hour shift is regular diet.

Los Angeles plant with long background

of progressive production: Our experience is that five-day week does not necessarily reduce absenteeism.

Authorization Required

• All sales of steel under Revised Priorities Regulation No. 13 now require authorization by the regional WPB offices, 1355 Market Street, San Francisco. The purpose is to aid in clearing inventories, so that material will not be listed as on hand when it has already been moved. Either buyer or seller can obtain immediate authorization from the Redistribution Branch.

Decentralization Of Steel Production

New steel producing facilities established by Columbia Steel Company in Utah and the Kaiser Co., Inc., in Southern California are not "marginal" units but, because of the location of their raw materials in relation to market, represent the first steps in decentralization of the basic iron and steel industry, according to a survey prepared by the industrial department of the Los Angeles County Chamber of Commerce and published by the Board of Supervisors of the county.

Iron ores of the Mesaba Range in the Lake Superior district are sold on a basis of 51 per cent iron content, the survey says, whereas Southern California ores range from 60 to 67 per cent. Less than 200 miles from Los Angeles there are deposits of iron ore so large that of one of them alone the U. S. Geological Survey says: "Judging from the preceding estimates, enough high grade ore is in sight to supply a modern blast furnace of a daily capacity of 500 tons of pig iron for more than 200 years."

A firm postwar footing for the steel industry of the West is based in the survey on an active consuming market for steel throughout the Western states, growing importance of Pacific export markets, steady expansion of population, expanding metal working industries, dominant position of the airplane in modern times coupled with California's leadership in the industry, Southern California's leadership in oil tool and oil equipment manufacturing, and virtually untapped materials for steel production as against the accelerated rate of depletion of iron ore in other sections of the country.

CONDUROCK

Explosion-Safe

SPARK-PROOF FLOORS

MEET U. S. REQUIREMENTS



New, ready-mixed, heavy duty, spark-proof CONDUROCK floor resurfacer meets all requirements outlined in U. S. Ordnance Dept., Safety Bulletin No. 25. Installations witnessed by authorized officials, have proved it to be an effective preventive against explosions caused by static electricity in plants where black powder, igniter composition, tracer mixtures, primer mixtures, mercury fulminate, lead azide, tetrol and other like materials are handled or processed. Resurface your floors, table tops and other areas with CONDUROCK now. It will dissipate static electricity and substantially remove explosion hazards.

EASY TO APPLY—LASTS A LIFETIME



Because CONDUROCK is factory-prepared, it can be quickly applied over your old concrete, metal, brick or composition floors. It will take your heaviest loads and last as long as the supporting sub-structure.

SPEED PATCH

Fixes Factory Floors Quickly—No Delay!

A few taps with a tamp and another Speed-Patch installation is completed. Actually installed without a "hitch" in plant operations. And, it's a load-proof, spark-proof patch that feather-edges perfectly.

Keep your production moving smoothly and safely, by repairing your floors with ready-mixed, ready-to-use Speed-Patch.

Remember, Speed-Patch repairs can be made in a jiffy, and without interfering with your regular plant operations. Comes ready-mixed. Hundreds of big war plants use Speed-Patch regularly.

Rock-Tred offers a material to meet every floor problem.

ORDER NOW FOR
QUICK DELIVERY

ROCK-TRED

11015 S.W. Collina Ave., Portland 1, Oregon

CORPORATION

605 WEST WASHINGTON STREET
MONROE 3560, CHICAGO, ILLINOIS

2003 Rangeview Drive, Glendale 1, California

"Steel Bank" Plan Proves Its Success

WPB's "Steel Bank," on which war plants in the San Francisco Bay area may draw for their needs to get quick service, has been proclaimed a success after 60 days of pre-testing. It was established April 1 as a test plan for speeding up deliveries from the 30 major steel warehouses in the area by pooling their inventories with the Steel Warehouse Section of the WPB regional office in San Francisco.

The system involves the maintaining of a perpetual 24-hour inventory of all the stocks by the WPB. When users of steel cannot be taken care of by their normal suppliers, they call the Steel Warehouse Section instead of making the rounds of all the warehouses themselves. In the first two months 1250 inquiries were handled, involving approximately 6,000,000 pounds of various steel items.

Liquid Insulation

The newest development in PAINT



CALADIUM—the answer to Industry for a tougher, more durable protective surface coating. Outstanding in advantages and revolutionary in the many jobs it will do, **CALADIUM** has set a new high in liquid insulation.

CALADIUM will positively deflect heat-generating infra-red sun rays at least 50% more efficiently than war-scarce aluminum paint. This high deflection value in **CALADIUM** by actual test, increases with age. Result—cooler inside temperatures in production plants and low-roof buildings—reduced evaporation losses in liquid storage tanks, pipe lines, etc.

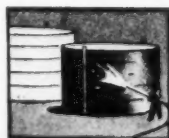
CALADIUM offers perfect coverage, even over asphalt, without "bleeding," plus unsurpassed durability on ALL surfaces. Its tough, flexible oil-base film provides remarkable weather resistance and long life.

In addition, **CALADIUM** comes in a wide variety of decorative colors—easily applied, brush or spray, quickly drying to a smooth, even finish.

Due to war needs, the supply of **CALADIUM** is often limited, so do not delay availing yourself of complete information.

PREMIER OIL & LEAD WORKS

3950 MEDFORD STREET, LOS ANGELES • PHONE AN. 15141



Superior heat deflection reduces evaporation loss to minimum.



Reduces inside temperature of low buildings to an amazing degree.



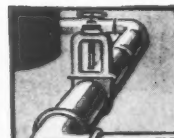
Ideal for camouflage, resisting infra-red photography detection.



Covers all types of surfaces perfectly, including asphalt.



Provides a weather-resistant coat for all types of vehicles.



Tested and proved, it can be relied upon for any tough job.



Caladium

PERFECTION IN PROTECTION

WPB Used Equipment Plan Is Explained . . .

WEST COAST used machinery and equipment dealers are the first in the country to be canvassed by the Redistribution Division of WPB in its campaign to acquaint dealers with its service of assisting to locate and move items needed in the war effort.

A series of meetings, beginning with Sacramento on July 7 and Fresno on July 8, followed by others later in the month at Portland, Seattle, Spokane and Boise, were to wind up by the end of the first week in August with sessions at Reno, San Francisco, Los Angeles, San Diego and Phoenix. A. S. Weaver, Jr., of Weaver Tractor Co. presided at Sacramento, and C. G. Connors of Kyle & Co. at Fresno. The California State Chamber of Commerce, through Chas. Knight of its industrial department, and the Sacramento and Fresno chambers cooperated in arranging these two meetings.

The Redistribution Division's service, as pointed out by W. D. Cloos, coast chief, places WPB on the dealers' sales force without compensation, helping them to locate free anywhere in the West, through its inventories in 12 Western regional and 65 branch offices, items needed to supply

their customers. If there is nothing available in the West, and the item is critical and urgent, the division's master file in Washington, D.C., will be consulted to locate it anywhere else in the country that it can be found.

The need for used and new fractional h.p. motors is growing, as the available supply become further depleted, while for motors of higher rating, from 20 h.p. on up, the demand is increasing proportionately with the size, with 25- and 50-cycle frequently required.

Urgent requests are being received for used machine tools of all kinds, particularly milling machines, planers, shapers, boring and drilling machines, punch presses, bench grinders and welding machinery and equipment.

A special "Want List" of critical used articles has been issued by WPB, as follows:

Fabricated metal basic materials:

Boilers over 100 lbs. operating pressure; all forms of tanks, especially nickel and glass-lined, also pressure tanks; valves, steel, high pressure, 300 lbs. and up, 1½ inches and over.

General purpose industrial machinery and equipment:

Deep well and sump pumps; cellar injectors,

cellar drainers, small system pumping units, complete with tanks; small water system pumping units; compressors, 1½ to 10 h.p.; overhead electric cranes of any type; fans, blowers and exhausters in larger sizes; industrial furnaces; extrusion and plastic molding presses and injection presses; heat interchangers.

Electrical machinery and apparatus:

Motors of all characteristics.

Special industry machinery

(Machinery for selected industries requiring specialized machines)

Canning machinery; rubber working machinery, particularly tubing machines and rubber working machines over 40 in. width.

Indicating, recording, and controlling instruments and accessories:

Except watches, clocks and optical instruments.

Miscellaneous equipment:

Industrial type powered trucks.

A new list of eleven super-critical materials has recently been compiled by the Redistribution Division out of the present critical list of more than 500 items, as follows: chemicals—agar agar, benzene (benzol), phenol, quinoline; metals and minerals—mica (uncut block, built-up, plate and splittings), tin (pig and block), zinc (slab); textile fibre and other products—agave fibre, goose and duck feathers, kapok and manila fibre.

Among the items offered or needed by the Redistribution Division are:

On Hand

Offered by a federal agency:

21,008 used Admiralty condenser tubes, 1-inch, O.D. 20 ft. 3-in long, 16 gauge. Located
(Continued on Page 32)



Recruiting FOR THE WEST—

FOOD FIGHTS, TOO—so another in our series of billboards, illustrated here, is devoted to a wartime problem. Designed to help the growers . . . revamped to help the packers . . . it's appearing in some 400 Western localities.

Will you join us in this recruiting effort? Perhaps there are persons in your employ or acquaintance who would patriotically spend vacations or other free time in fields or canneries . . . on just a suggestion from you.

W. P. FULLER & CO.



It's true they're on tanks, guns, naval vessels and production equipment—more than all other lock nuts combined.

This is because these nuts stay put. There's a red elastic locking ring in the top which grips the bolt with an oil- and water-proof seal and eliminates all axial play and wobbling.

When the war's won, the millions of Elastic Stop Nuts we're pouring out each day can be turned to the fastening problems of peace.

They can be turned to producing better products and equipment that will save time and expense for maintenance engineers.

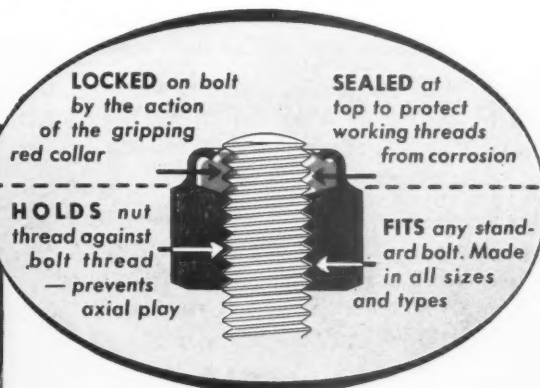
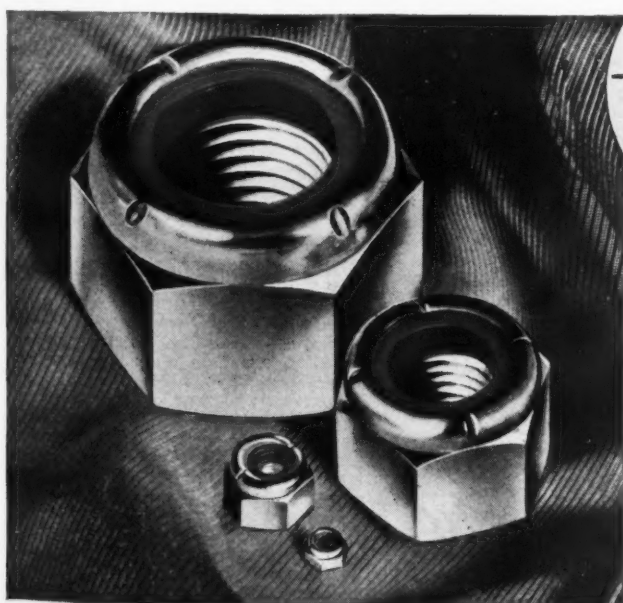
Whatever your fastening problems might be, our engineers, experienced in the work of both war and peace, will be glad to help cope with them.

Feel free to call upon them. They'll work with you and suggest the proper Elastic Stop Nut to lick the job.

THEY'RE THE NUTS FOR POSTWAR PLANNING

It's true that now we can't supply all the Elastic Stop Nuts Uncle Sam wants — even with three big plants running 24 hours a day.

It's true that Elastic Stop Nuts are flying in every American plane — sometimes 50,000 of them in a single ship.



ELASTIC STOP NUTS

Lock fast to make things last



ELASTIC STOP NUT CORPORATION OF AMERICA
Union, New Jersey and Lincoln, Nebraska



Take Sabotage out of Loyal Hands

INDUSTRIAL DERMATITIS with its resulting loss of time, is as useful to the enemy as a secret agent! Dermatitis (skin disease) is an occupational hazard—and as such is preventable.

Each year, dermatitis is responsible for millions of hours lost from work by the men and women in American industry. In fact, records indicate that skin ailments are the most common of all occupational diseases.

In recognition of the seriousness of this constant threat to production and the workers' welfare, West has recently prepared the new booklet "Production Safeguards Against Dermatitis."

Send For Your FREE Copy



*Trade Mark Reg. U. S. Pat. Off.

55 BRANCHES • HELPING TO GUARD INDUSTRIAL HEALTH • COAST TO COAST

WEST

DISINFECTING
Company

42-16 WEST STREET • LONG ISLAND CITY, 1, N. Y. • DEPT. WI

USED EQUIPMENT (Cont'd from Pg. 30)

in Southern California, suitable for installation in any condenser requiring 1-inch tubes up to 19 ft. 5 in. long. Crated and ready for shipment, consequently no packing or crating charges involved.

Idle in hands of Los Angeles company:

Raw spruce fibre paperboard, intended for use as bottle caps, 14,497 pieces (141,120 sq. ft.) .090 thickness, sheets ranging from 18x48 to 18x96; 4803 pieces (57,030 sq. ft.), same sizes, 50-lb. Kraft paper, one side.

Offered by dealers in San Francisco Bay cities and northwest:

Over 3,000 tons assorted relay rail ranging from 35-lb. to 80-lb. Good condition.

Remaining from a war contract:

Over 150,000 feet copper cable in over 20 different large sizes with various specifications.

Distressed cargo in hands of an international banking corporation:

46,986 lbs. insulated copper magnet wire, 10 to 45 S.W.G., various standard insulations, packed in 263 cases. Material warehoused in San Francisco.

Idle inventory due to incorrect specifications:

In hands of San Francisco Bay district producer, over 4 tons of 1/2-inch (undersized .483) cold drawn bar, SAE X 11-12.

Excess inventory in hands of San Francisco concern:

Approximately 150 tons steel heading wire, ranging in size from .298 to .609.

Held by Northwest industrial concern:

32,000 38-millimeter (approximately 1 1/2 in.) bottle caps, screw type, with glazed lining paper.

Critical Equipment Wanted

For immediate installation in a government construction project:

295 tons black and galvanized steel pipe, ranging from 1/2-inch to 12 inches. Will accept used pipe only if it passes rigid government inspection tests.

By large retail and wholesale Arizona bakery engaged in supplying army posts:

Used 110-quart cake mixing machine with various accessories, including extra 80- and 40-quart bowls and used 2 h.p. motor for operation.

Needed for government contract:

Beryllium copper sheet, .015 gauge, in multiples of 6-in. or 8-in. widths.

By Washington paper company for use in pulp production:

Used 100 h.p. electric motor, line-start, low starting current, splashproof, 3-phase, 60-cycle, 1200 r.p.m., 440-460 volts.

Urgent demand by defense plants for paper drinking cups:

Due to fact that armed forces now taking more than 50 per cent of present production and civilian demand increased about 500 per cent in last year on account of increased call from airplane factories, shipyards and all other types of war production plants, shortage of virgin wood pulp that must be used for health reasons so acute that no expansion will probably be permitted in production. It is suggested that use of paper cups be curtailed for any use where glassware can be utilized instead.

By an Idaho machinery company:

Combination punch and shearer equivalent to No. 0 Universal Iron Works or heavier. Must handle up to 1-1/4-in. round bar and capable of punching 1/2-in. and 3/4-in. holes in 1/2-in. stock.

Required for packing and defense industries:

Cement coated nails of all sizes and specifications.

EDITOR'S NOTE: Readers may address Western Industry, if they desire, for further information about these items, or may communicate direct with the Redistribution Division, WPB, 1355 Market Street, San Francisco. Anyone wishing to have Western Industry expand this editorial service is requested to write to the editor.

BUSINESS BOOKS

• *National Fire Codes for the Prevention of Dust Explosions*. A 160-page book which includes the 15 American Standard Codes, a statement of the fundamental principles of dust explosion prevention in industrial plants and a record of some 780 dust explosions which have occurred in the United States. Suitably illustrated with drawings. Price, \$1.00. Published by National Fire Protection Association, 60 Battery March St., Boston, Mass.

• *How to read Electrical Blueprints*, by Gilbert M. Heine and Carl H. Dunlap. New "how-to-do-it" book giving general information on blueprints, how to read architectural blueprints, diagrams for bell and signal wiring, house-wiring blueprints, administration building blueprints, automobile wiring diagrams, diagrams of generators and motors, symbols for control diagrams, motor control diagrams and power station blueprints. Price \$3.00. Published by American Technical Society, Drexel Ave. at 58th Street, Chicago, Ill.

• *Glue and Gelatine*, by Paul I. Smith. A primer for the practical man, dealing with all branches of the industry: raw materials, manufacture and application. Price \$3.75. Chemical Publishing Co., Inc., 26 Court Street, Brooklyn, N. Y.

• *Price Control in the War Economy*, by Dr. Julius Hirsch. Gives a comprehensive, simple and practical account of the background, the principles and the operation of Federal price control legislation under which we live today. It explains the problems facing business men and government officials, points out the dead-end paths which other nations have followed, and shows why a natural and orderly sequence of price controls exist. Price, \$3.00. Published by Harper & Brothers, 49 East 33rd St., New York, New York.

• *Glossary of Shipbuilding and Outfitting Terms*, by Walter J. Eddington. This reference book brings together the language of shipbuilding and of the three departments of the modern ship—deck, engine and steward's. Included in this book of practical information are lists of the equipment in each ship's department and 30 pages of selected tables and other useful data. Price \$3.50. Published by Cornell Maritime Press, 241 West 23d Street, New York.

• *Practical Emulsions*, by H. Bennett. The latest authoritative information in the field of applied emulsions, concentrating on the art of making and applying emulsions, so this practical information will be readily available to technical workers. Price \$5.00. Published by Chemical Publishing Co., Inc., 26 Court Street, Brooklyn, New York.

(Continued on Page 35)

Statement of Condition

At the Close of Business June 30, 1943

NOT INCLUDING TRUST FUNDS

Resources	
CASH	
On Hand and with Federal Reserve Bank	\$76,417,124.55
With Other Banks	28,715,468.41
INVESTMENTS (at not exceeding market value)	
U. S. Government Securities	253,484,713.86
Other Bonds	18,584,378.27
Stocks and Other Securities	692,751.78
(Including \$480,000.00 stock in Federal Reserve Bank of S. F.)	
Loans	
Loans and Discounts	32,558,860.91
Loans on Real Estate	5,890,138.64
Customers' Liability for Credits and Acceptances	4,634,919.49
Bank Premises, Furniture and Fixtures	2,875,604.25
Other Real Estate Owned	513,011.81
	<u>\$424,366,971.97</u>
Liabilities	
DEPOSITS	
Demand Deposits	275,810,649.77
Time Deposits (Savings and Commercial)	104,741,699.54
Public Funds	19,368,613.55
Letters of Credit, Credits and Acceptances	4,691,578.51
Reserved for Taxes	935,340.94
Other Liabilities	392,204.37
CAPITAL Paid in	9,000,000.00
Surplus	7,000,000.00
Undivided Profits	2,426,885.29
	<u>\$424,366,971.97</u>

*\$24,894,741.12 pledged to secure Public and Trust Funds

STATE OF CALIFORNIA }
City and County of San Francisco } ss.:

A. W. Kohnner, Cashier of Wells Fargo Bank & Union Trust Co., being duly sworn, says he has a personal knowledge of the matters contained in the foregoing report of condition and that every allegation, statement, matter and thing therein contained, is true to the best of his knowledge and belief.

Subscribed and sworn to before me this first day of July, 1943, Nancy Everett, Notary Public in and for the City and County of San Francisco, State of California.

Correct—Attest: Sidney M. Ehrman, Henry Rosenfeld, W. P. Fuller, Jr.

DIRECTORS

Sidney M. Ehrman
*James Flood
*J. A. Folger
W. P. Fuller, Jr.
W. L. Gerstle
Clara Hellman Heller
*F. J. Hellman
*I. W. Hellman

Arthur D. King
Frank B. King
H. G. Larsh
Dr. Hartland Law
Samuel Lilienthal
E. C. Lipman
F. L. Lipman

Wilson Meyer
R. B. Motherwell
Henry D. Nichols
Henry Rosenfeld
R. S. Shainwald
Guy V. Shoup
Frank E. Sullivan
J. D. Zellerbach

*Is one of our 224 Directors, Officers, and Members of the Staff now on leave for wartime duty.

Wells Fargo Bank & Union Trust Co.

SAN FRANCISCO

Oldest Bank in the West—Established 1852

Member F. D. I. C.

Send for booklet—BANK BY MAIL

New Program Requires Western Scrap Metal

Irrigation Projects Included in Food Supply Plans Need 50 Pounds of Steel for Each Acre

THE recent reshuffling of Region 10 of the Salvage Division of WPB is particularly interesting to the business people of the West Slope because of its relation to the irrigation projects pending on the West Slope and in the fact that the Salvage Division of WPB is one of the outstanding examples of decentralization of the federal government in practice. Do not, however, compare the decentralization with the Selective Service system, which is so confused and chaotic that the right hand—in Washington—really does not know what the left hand—the states and localities—is doing.



Salvage operates with far more precision and definition, and the regional organizations have become practically autonomous. The headquarters in Washington, directed by Paul Cabot, chiefly sets up broad general principles within which the regional offices operate, and provides supervision.

Don't Shoot the Piano Player; He's Doing His Best

Commenting on the article "North-west Aluminum Pilot Plant Projected" in the Washington news letter in the June issue, J. O. Gallagher, president of the Columbia Metals Corporation, Seattle, feels that a wrong impression is given about certain WPB officials. He says:

"We have had many contacts and negotiations with the Aluminum and Magnesium Division of the War Production Board headed by Mr. A. H. Bunker, and assisted by Mr. Philip D. Wilson, and it is our opinion that on the whole they have done an outstanding job under trying and difficult circumstances.

"With respect to our particular project, it is true that there have been many delays, but it is a complicated undertaking involving in the first place a whole new national program, and in the second place, because it is a new and untried process, a great deal of special technical consideration.

"We feel that the criticism directed toward Mr. Wilson is not warranted, the delays experienced being largely, if not entirely, beyond his control, and that he has handled the matter with orderly and thoughtful consideration."

NOTE: With unparalleled speed, this project has been now approved by WPB, except for choosing the site.

By ARNOLD KRUCKMAN

This program of decentralization, an admission of the futility of making a pattern in Washington to impose upon California or Arizona, is gradually being adopted by many other federal government agencies.

The Salvage Division of WPB in Region 10 is the organization which covers California, Nevada, Washington, Oregon, Idaho and Arizona. Region 9 embraces Wyoming, Montana, Utah, Colorado, and New Mexico. Our special interest, however, focusses on Region 10. In salvaging iron, steel and other metals, this region has held top honors, producing more scrap than any other region of the United States. It made its greatest record in 1942, the region doing 113.3 per cent of the quota set for it. Arizona made the best percentage showing by producing 158.3 per cent of its allotted quota; Idaho came next with 129 per cent; Oregon third with 127.9 per cent; Washington, 114.9 per cent; California, 110.8 per cent; and Nevada, 88.5 per cent.

For the first six months of this year Region 10 was asked to produce 729,000 net tons metal scrap. By states the schedule runs: California, 517,000 tons; Nevada, 13,000 tons; Arizona, 11,000 tons; Idaho, 25,000 tons; Oregon, 78,000 tons; Washington, 85,000 tons. Region 9 has been asked to produce 218,000 net tons; Wyoming, 39,000 tons; Montana, 32,000 tons; Colorado, 61,000 tons; New Mexico, 51,000 tons; Utah, 35,000 tons.

Besides metals, Salvage has the job of collecting fat, and also must assemble the tin cans used for precipitation in Western plants in place of copper. All this huge job in Region 10 comes under the general direction of D. S. Neher, Regional Salvage Manager, with headquarters at 1355 Market Street, San Francisco. He has just succeeded Col. Frank Smith, who has become Regional Director of Smaller War Plants Corporation. Mr. Neher's old job, Regional Chief of the Scrap Processors Branch of the Salvage Division of WPB, has been taken over by W. F. Breuer, located also at the same San Francisco address. The region itself is broken down into eight districts.

Field organizations largely consist of field inspectors who have the job of ransacking the countryside for scrap. One

One of the best-informed writers at the Nation's Capital, Arnold Kruckman, presents each month authoritative comments on political developments and their practical application to industry of the West. Any reader who wishes additional information may write to him directly, using business letterhead, at 1120 Vermont Avenue, N.W., Washington, D.C. Inquiries will be answered free of charge. You also are invited to contact him personally in Washington. Copies of pending congressional bills may also be obtained free of charge.

inspector alone calls on 137 auto wreck yards and 42 scrap dealers between Los Angeles and Paso Robles. There is an ardent spirit of competition between the men who gather the scrap.

The metal scrap campaign out there ties in with the pending development of 2,000,000 acres of land in the several states of the West Slope. As you know, the push behind this program comes from the urgent need for more food. Congress has provided the funds, which will undoubtedly run up to \$100,000,000 or more, for the building of the dams and the ditches to irrigate the land. It is to be brought into existence as swiftly as possible.

To build the irrigation works it has been estimated that 50 pounds of metal will be needed for each acre. This obviously means that 50,000 tons of reinforcing steel will be used. Old rails, and similar scrap iron and steel, are most useful to make reinforcing bars and similar metal products. Region 10 obviously has a very special interest under these circumstances to produce scrap metal for this salvage drive.

It is expected the program of irrigation development will soon be actively under development. Marvin Jones, from the wheat country of Texas, also is a close friend of F. O. Hagie, managing secretary of the National Reclamation Association, and from Hagie, Mr. Jones apparently has learned enough about irrigation to have prompted him to tell a Western congressional delegation they did not have to convince him—all they had to do was to supply the funds. Apparently Mr. Jones, the new Food Administration head, will help to pry the steel and iron allocation out of WPB.

You have another agency here that is now keenly interested in any problems that affect the consumer and the civilian manufacturer and distributor. Office of Civilian Requirements, under A. D. Whiteside, is actively striving to help you

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to obtain materials and labor, and even transport.

We understand, incidentally, from now on, travel between Chicago and the Pacific Coast will be increasingly difficult. Rationing is generally believed in Washington not to be far off. It is possible, however, that the non-military producer and distributor on the coast, who has a real reason for coming East, may get travel priorities, when necessary, through the interposition of OCR.

This agency acts very genuinely as the claimant for the business man who has no other friend at court here. It is undoubtedly through OCR that considerable material will be turned loose for civilian needs. The effect should be perceptible by the time this is published. The real effect is not expected to be clearly apparent until after Christmas. And it fits the picture to say that inventories for Christmas sales are expected to be the lowest in the history of the United States.

OCR, which may still be superseded by the Office of Civilian Administration when Congress comes back from its vacation, has a unit and an expert able to function on almost any problem of any non-military industry or business. If you have a problem you think OCR may be able to handle for you, and you do not know to whom to write, let me know and I will find out and inform you.

In all likelihood you will find the laundry industry on the Pacific Slope will gradually be able to give you better service by reason of the aid given to the whole industry in the United States. The first plan worked out is now in joint operation under the sponsorship of OCR and WMC, is permissive, applies to cities and areas called critical war areas, and is founded on what is known as the *locally needed* standards. The workers are frozen in their jobs so that they may not leave except with the consent of the employer and the WMC, are paid a minimum wage approved by WMC and treated according to approved standards, both as to hours and working conditions, while the laundry operator also must accept certain fixed prices which are approved by OPA.

The second plan, originated by OCR and also permissive, is designed to improve the supply of gasoline and fuel, and provide more reasonable adjustment of delivery facilities in order to serve the customer. War Labor Board genuinely works with the laundry owner as well as the worker to adjust wages reasonably. In some places some problems may be solved by providing the operator with labor-saving machinery and equipment, where at present he can only get parts to a value not in excess of \$100.

The importance of this plan is not only in its effect in easing the local laundry situation, but in the fact that the principle undoubtedly will be applied to other ser-

vice and retail distributive businesses that are in difficulty over materials, delivery facilities, manpower, and other factors they have not been able to solve. The West will undoubtedly be the laboratory for a test in some other services.

BUSINESS BOOKS (Cont'd from Pg. 33)

• *Aviation Mechanics Simplified*, by H. L. Williams, edited by M. H. Froelich. Designed as a complete study course in all branches of aviation mechanics. Includes all the latest advances made in the field of aviation mechanics and maintenance and is a manual for both the working mechanic and average nontechnical man, with an

aircraft picture dictionary. Price \$3.95. A. Neil Sawyer Company, 275 Seventh Ave., New York, New York.

• *Naval Architecture as Art and Science*, by C. O. Liljegren. A book presenting fresh ideas about ship design. Part I gives the elements of ship drafting and the simple fundamentals of ship design. Part II analyzes the maze of problems and theories faced by the naval architect. Part III discusses what produces efficient ships. The appendix tells how to find without guesswork the speed, engine power and displacement of a profitable ship. Price \$4.00. Published by Cornell Maritime Press, 241 West 23d Street, New York.

FIELD NOTES

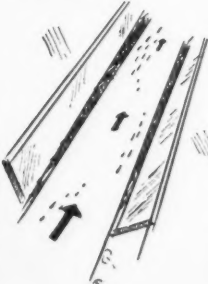
SKIRT BOARDS

need not cut conveyor belt life.

Materials that wedge between a conveyor belt and skirt boards can gouge and otherwise damage the belt cover. Here is a safe way to build such skirting:

Place the skirting as close to the belt as possible without touching the carrying side. Set them so that the space between the skirt board and the belt increases in the direction of belt travel, thus permitting pieces of materials to work free rather than become wedged against the belt face.

You may add considerable operating life to your belts by checking installation against this approved design.



VICTORY before "VICTOR"

"Victor" has long been Pioneer's top brand... the finest in conveyor belts and hose. The fine grades of crude rubber used in its manufacture, however, now must serve ships, planes and tanks almost exclusively. Meantime, skillful blending of age-resisting chemicals with allowable rubber enables Pioneer to continue producing high grade mechanical rubber goods to emergency specifications. PIONEER RUBBER MILLS, 353 Sacramento St., San Francisco, Calif.

PIONEER

Job Tailored CONVEYOR BELTS

WESTERNERS AT WORK...

T. M. Stuart, director since 1934, elected president and general manager, Yosemite Portland Cement Company, replacing A. Emory Wishon, who though resigning as president, remains on board and as member executive committee. . . . W. Frank Persons becomes head, newly organized industrial relations department, Ryan Aeronautical Company. . . . Preston Hotchkis, Los Angeles, re-elected president of California State Chamber of Commerce.

William A. Cooke, in charge of industrial relations at Burbank plants of Aircraft Accessories Corp., named vice president of Burbank division. . . . W. Horace Holcomb, former vice president and general manager, Pelton Water Wheel Company, San Francisco, appointed assistant to newly elected president of the parent company, Baldwin Locomotive Works, Eddystone, Penna., Ralph Kelly, Holcomb to serve also as vice president and Kelly as president of Pelton Water Wheel Co.

■ Colonel F. M. Smith has been appointed regional director for the Smaller War Plants Corporation on the Pacific Coast. This is his third important war post in two years. His first was with National Defense Council regional office and his second was state director of OPM Division of Contract Distribution. Colonel Smith, an army engineer, was formerly head of the Maywood Glass Company.

California State Chamber of Commerce appoints following chairmen of regional committees of Central Coast Council: E. W. Stephens, South San Francisco, Agricultural Committee; Dr. E. J. Leach, Salinas, Transportation and Highways Committee; Weller Noble, Berkeley, Industrial Committee; A. E. Connick, San Francisco, Natural Resources Committee; Victor H. Tuttle, Watsonville, Taxation Committee; and Ted Huggins, San Francisco, War Service Committee.

Appointments by Westinghouse: Frank T. Anderson, manager Lamp Division, Seattle; Frank H. Robb, manager Manufacturing and Repair Department, Los Angeles; Charles A. Butcher, district manager Manufacturing and Repair Department, Pacific Coast District.

■ Harold C. Arnot, regional manager of ODT's Motor Transport Division, San Francisco, has been named director of the Division of Motor Transport, succeeding John L. Rogers who became assistant director of ODT. Arnot's old job has been taken by Roy O. Long, who was in charge of the Los Angeles office and formerly vice president of Valley Express Company, Fresno. Arnot was formerly a motor truck operator in Seattle.

Raymond Kindig, formerly assistant secretary, appointed secretary of Pacific Gas and Electric Company, succeeding D. H. Foote who is retiring but will remain member, board of directors. O. H. Barthol, assistant treasurer, also named assistant secretary, and Wm. Forrest appointed assistant secretary of same company.

W. E. Curran, formerly assistant plant manager, Birmingham, appointed general manager, Richmond, Calif. plant, Rheem Mfg. Company. . . . Weston G. Frome, long general manager, Giant works, Atlas Powder Company, offices San Francisco, now assistant general manager, explosives department of company at Wilmington, Delaware.

J. R. Travis, former general manager, made president, Eaton Metal Products Company, Denver, Colorado, succeeding late A. N. Eaton. . . . Elden R. Carl, labor relations executive, named director of industrial relations, Adel Precision Products Corp. . . . Stephen F. Hinchliffe and Eldore E. Rosier elevated to vice presidents, Doak Aircraft Company.

Jacob D. Shilling, Salt Lake City, Utah, promoted to assistant general manager, Utah Copper Company. . . . Lester B. Schorn elected president, Schorn Paint Manufacturing Company, Seattle, succeeding his brother, the late Frank E. Schorn. . . . James B. Black, president of Pacific Gas and Electric Company, named to Natural Gas Industry Advisory Committee of WPB.

J. Charles Galbreath now vice president Plomb Tool Company, Los Angeles, also retaining general supervision, contract department, and Berado Perez-Fraga, former traffic representative Pan-American Air Lines, appointed to export department, Plomb Tool Company. . . . Warner Clark, general manager of conservation, Standard Oil Co. of California's producing department, elected chairman of Conservation Committee of California Oil Producers.

■ Fritz Ziebarth, head of the Long Beach construction firm bearing his name, has taken over operation of the Morrow Aircraft Corporation at Rialto, Calif., where plane assemblies are made for aircraft manufacturers in the East as well as West. In charge of the Morrow operation for Ziebarth is E. M. Findlay. Ziebarth has built practically every known type of heavy construction. Recently at Basic Magnesium, Inc., Las Vegas, Nevada, he supervised completion of the world's largest electrical installation in record time.

Carlton R. Tibbetts, president Los Angeles Steel Casting Co., appointed Los Angeles chairman and R. E. Fisher, vice president, Pacific Gas & Electric Company, San Francisco chairman, national committee for Economic Development. . . . Frank C. Angle, formerly manager, Allis-Chalmers San Francisco district office, appointed manager entire Pacific region, also raised to presidency, Pacific Coast Electrical Association for coming year.



• 25TH ANNUAL BANQUET, COLUMBIA EMPIRE INDUSTRIES, INC., PORTLAND, ORE. Left to right: R. B. Ambrose, president, Columbia Empire Industries, Inc., and vice president, Portland Woolen Mills; Henry J. Kaiser, head, nation-wide Kaiser enterprise; Hon. Earl Snell, Governor of Oregon; Edgar Kaiser, general manager, Portland and Vancouver Kaiser Plants; Dr. A. C. Koppen, Professor of Aeronautics, Massachusetts Institute of Technology; Austin Flegel, executive vice president, Willamette Iron & Steel Corp.; Irving T. Rau, first vice president, Columbia Empire Industries, Inc., and secretary-treasurer, St. Helens Pulp & Paper Co.; Will R. Lewis, second vice pres., Columbia Empire Industries, Inc., and special representative, Oregon Mutual Life Insurance Co.

Samuel A. Huffman appointed plant manager, Kobe, Inc., Huntington Park, Calif. . . . James D. Crawford, chief engineer, Fairbanks Exploration Dept., U. S. Smelting Refining and Mining Company, transferred to Salt Lake City, Utah, office. . . . P. M. Palmer named chief engineer, Bardwell & McAllister, Inc., Hollywood. . . . Percy S. Sales, vice president, Crocker First National Bank, appointed regional loan agent, Smaller War Plants Corp. on Pacific Coast.

Don S. Neher named WPB's West Coast regional salvage director. . . . Francis M. Bacon made compliance officer, West Coast Lumber Commission. . . . T. P. (Josh) Billings appointed assistant general manager of metal mines and Leland A. (Shorty) Walker has become manager of mines for Utah metal mine operations, U. S. Smelting, Refining and Mining Company.

Ed G. Bern, Southern California aviation expert, named general manager of all Howard Hughes West Coast Aircraft Enterprises. . . . J. E. Jellick appointed sales manager, Pacific Portland Cement Company. . . . Theodore H. Affleck joined engineering staff, Aircraft Accessories Corporation.

Reese Tucker named secretary and treasurer, Western Pipe & Steel Company of California. . . . Bahngrell W. Brown ap-

pointed field engineer, Arizona Dept. of Mineral Resources. . . . George H. Schroeder named district forest engineer, Central Washington and Curtis E. Price named district forest engineer, Oregon and northern California, for Western Pine Association.

Jay Morrison, formerly production manager, Boeing Aircraft Company, made vice president and general manager, Boeing Aircraft Co. of Canada, Ltd., headquarters at Vancouver, B.C. R. L. Early succeeds Morrison at Boeing Seattle plant. . . . George K. Comstock, president, Electrical Products Consolidated, Seattle, appointed deputy regional director new Northwest WPB region.

Kenneth Bechtel has been elected president of Industrial Indemnity Company, San Francisco, succeeding the late John Phillips.

Associations Elect

Purchasing Agents Association, Los Angeles: C. A. Keeble, Union Pacific Railroad, president.

Purchasing Agents Association, Northern California: Mervyn C. Nystrom, Southern Pacific Company, president; Otto Peterson, Braun-Knecht-Heimann, first vice president; Lyn L. Schafer, American Rubber Co., second vice president; Russell F. Hendrick, E. H. Edwards Co., sec-

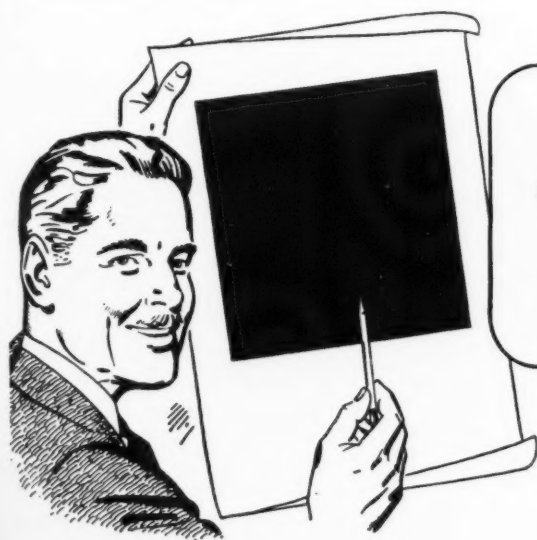
retary; L. A. Wilbur, Tubbs Cordage Co., treasurer.

American Foundrymen's Association, Northern California Chapter: Harry A. Bossi, H. C. Macauley Foundry Co., president; Ralph C. Noah, San Francisco Iron Foundry, vice president; George L. Kennard, secretary-treasurer.

American Foundrymen's Association, Inc., Southern California Chapter: Walter F. Haggman, Foundry Specialties Co., president; W. D. Bailey, Jr., Westelectric Castings, Inc., vice president; E. M. Hager, General Metals Corp., secretary; Robert R. Haley, Advance Aluminum and Brass Co., treasurer.

Aircraft Traffic Association: Tyler Glenn, North American Aviation, chairman, board of directors; J. P. Boore, Baker Steel and Tool Co., vice chairman; E. L. Stephens, Northrop Aircraft, treasurer; Sanford E. Eades, Douglas Aircraft, secretary.

American Society of Metals, Oregon Chapter: Colin G. Chisholm, Columbia Steel Company, chairman; W. J. Kollas, Montag Stove & Furnace Works, vice chairman; John E. Comfort, Pacific Metal Company, secretary-treasurer. Executive Committee: S. H. Graf, C. E. Thomas, N. L. Peck, W. J. Ulrich, G. E. Healy and R. E. Neils.



Interior view OF A PAYNE PRODUCT, 1943

LOOKING AHEAD—V-Day will find us better-equipped than ever to provide PAYNE Dealers with furnaces engineered for leadership; precision-built of finest materials; tested in our own modern laboratories; and *designed to make friends.*

It might be a dark-room for Army photographers, a part for a fighting plane or some other accessory or weapon for the armed forces. If the "blackout" leaves you curious, remember that Hitler and Hirohito would be interested, too! ★ PAYNE'S greatly-expanded facilities are now devoted exclusively to war production. And we're all proud of the identification badges we wear; thankful for our important tasks on America's great industrial front, so essential to final Victory.

PAYNEHEAT

Payne FURNACE & SUPPLY CO., INC., BEVERLY HILLS, CALIFORNIA

LABOR

AND THE INDUSTRIAL WEST

New Bonus System Tried

A new bonus system, approved by the Nonferrous Metals Commission of the NWLB, Denver, is based upon a point system tied directly to the mill capacity of the plant involved and is designed to stabilize labor.

Approval of the system was asked by the Callahan Zinc Lead Company, Cascade, Idaho, stating: "The plan consists of a fund which is to be divided equally among all the employees. The actual size of the fund is calculated on the basis of a point system wherein a unit of production of zinc, lead or silver constitutes one point. For all points in excess of 16,000 per month, the company pays 25 cents per point. The 16,000-point criterion is based on the capacity of the mill, which is 100 tons per day."

The Callahan Zinc-Lead Company does not believe the plan will bring higher production costs because the output per man will be greatly increased under the bonus impetus. However, it is estimated that a wage increase of \$2 per shift for the 65 men employed may result.

Women and Minor Workers Minimum

Increases in wages made by employers of California as directed by the State Industrial Welfare Commission, to establish minimum wage rates for four classifications of women and minor workers have been approved.

The four classifications are: (1) professional, technical, clerical and similar; (2) public housekeeping industry; (3) laundry, dry cleaning, dyeing; (4) mercantile. Minimum rate is set at \$18 a week for 40 hours (not over 8 hours in any day) equivalent to 45 cents an hour. In the first and fourth classifications beginners are given minimum of \$16 a week, equivalent to 40 cents an hour.

Ease Man Power Need

Following plans announced by War Manpower Commission officials to solve critical problems connected with keeping Southern California's war industry manned for peak production: (1) Blanket deferment of workers in nonferrous metals industry. (2) Many Los Angeles area employers act voluntarily to place their organizations on a 48-hour work week basis.

Wage Rate Brackets

The Tri-partite Division of 10th RWLB has set enough tentative brackets to serve as a basis for decision of some 1300 applications for wage adjustments pending before the RWLB. More than 300 occupations are covered in the tentative brackets established for various labor market areas. Some modifications of the brackets may be made later if additional data are received warranting a change, for the Wage Stabilization Division is continually accumulating statistics on wages throughout California, Arizona and Nevada.

Special Work Week

Ryan Aeronautical Company, San Diego, has established special work week schedule of 40 hours for new applicants and present employees who satisfy the management they cannot meet home obligations or maintain health while working the company's regular 48-hour week. "To the best of our knowledge, this company is the first to adopt this plan, which we think will attract more people into war work as well as provide another safeguard for the welfare of present employees," President T. Claude Ryan explained.

Handle Grievances Direct

U. S. Circuit Court of Appeals, San Francisco, dealt knockout blow NLRB precedent restricting employee's grievance right by ruling a business concern has right to have system of its own for handling employee grievances regardless of collective

bargaining agreement with union and that individuals or groups have right to present grievances directly to employers. Decision climaxed nearly two years' litigation between North American Aviation, Inc., and United Automobile Workers (CIO) Local 887.

Here and There in Labor Picture

Wage increase of 7½ cents an hour granted every worker in California redwood lumber industry, making minimum basic rate 82½ cents an hour. . . . Aircraft hiring office, Los Angeles, called "the largest employment office in the world," has been closed. Its staff of 83 absorbed by United States Employment Service. . . . Unable to win its point after two years of direct negotiations, Brotherhood of Railroad Trainmen has filed suit in Superior Court to compel the city of Santa Monica to recognize the organization as sole bargaining agent for motor coach operators employed by the municipality's bus system.

Pipefitters encouraged to learn welding, and welders, pipefitting, so members of each craft may do work in other craft if necessary to expedite war effort in shipyards, according to Steam Fitters' Union 235, Portland. . . . Pacific Coast Maritime Industry Board, War Shipping Administration, Seattle, has established program for training winch-driving and lift-truck operators.

WLB has brought small lumber mills in California, Washington, Oregon, Idaho and Western Montana under its wage stabilization program. . . . Labor-management advisory committee for West Coast lumber industry created by WPB. . . . Minimum wage of \$1.05 an hour and not less than 48 hours guaranteed work asked by AFL unions, Klamath basin lumber and sawmill workers.

• Aircraft Industry Panel, 12th Region, NWLB, Seattle. Left to right: Verne Burch; President H. J. Gibson, Aeronautical Mechanics Lodge 751 (labor); Dr. K. C. Cole, head, Political Science Department, University of Washington, Chairman of Committee (public); E. R. Perry, Assistant to President, Boeing Aircraft Co. (industry). Burch is alternate for Gibson. Paul Fredrickson, Boeing, alternate for Perry, not present.



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Hostesses have been appointed in every plant of Aircraft Accessories Corp. to aid new women employees in getting adjusted to their war jobs and surroundings. . . . Decisions upon voluntary wage adjustment application speeded up by action of 10th RWLB delegating power to take final action in high percentage of cases to wage stabilization division. . . . Basis of Consolidated Vultee's plan reducing man-hours through cost-improvement plan places on employees and those in supervisory capacity, responsibility for inaugurating improved methods. Through suggestions from supervisory staff, 6,058,000 man-hours per year saved and suggestions from employees save 862,906 man-hours per year.

CIO Industrial Union, Marine & Shipbuilding Workers, lost its suit to have Superior Court enjoin Standard Shipbuilding Corp. from discharging its members. . . . Trucking employees, 50 Oregon and Washington firms receive approval pay increases from RWLB. . . . Harry Bridges' CIO International Longshoremen's and Warehousemen's Union has agreed with Dave Beck's AFL Teamsters' Union not to indulge in more raids on each other's membership in places where one holds a live contract.

Maintenance of membership, with 15-day escape period and check-off clauses ordered included in contract between Shell Oil Company, Inc., and Oil Workers International Union, CIO, by 10th RWLB. . . . 800 employees Eastbay laundries granted wage increase 6c an hour by 10th RWLB. . . . NWLB approved wage agreement, San Jose Motor Car Dealers Assn.

and Allied Garage Owners Assn., San Jose, with International Assn. of Machinists, providing increases in minimum rates from 2½ to 15 cents an hour.

Pending legislation to prohibit NLRB going into case where contract has been in existence for 90 days between employer and employees halts NLRB case of CIO against Standard Oil Co. of California, which attacks Standard and the independent Standard Employees Association relationship as unfair labor practice on charge the company dominates the association. . . . Labor dispute of two weeks at Joshua Hendy Iron Works temporarily settled when machinists return to jobs pending settlement of dispute over 10-hour shift by WLB.

Shall employer refuse work to all but union members confronted WLB, Los Angeles, in following cases: International Association of Machinists demand closed shop; Leach Relay Co. CIO Oil Workers' Union demand closed shop; Texas Co. IAM demand closed shop, Western Gear Works, Lynwood.

NWLB approved wage increase of 8 cents an hour for 139 workers at Iron Mountain, Utah, mine of Columbia Iron Mining Company.

(Continued on Page 40)

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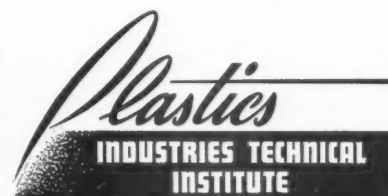
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LABOR (Cont'd from Pg. 39)

Superior Judge George A. Dockweiler, Los Angeles, makes decision that labor union is responsible for negligent acts committed by members of its picket lines. Ruling made in case of Frank Piedlow, garment cutter, who sued Local No. 84, AFL International Ladies' Garment Workers' Union and J. J. Ryder, union agent, for assertedly forcing him to sign union application under threats of physical violence. . . . Wages of 20,000 employees in 110 Southern California plants making airplane parts adjusted by 10th RWLB. Some employees receive raises of 5 to 15 cents an hour.

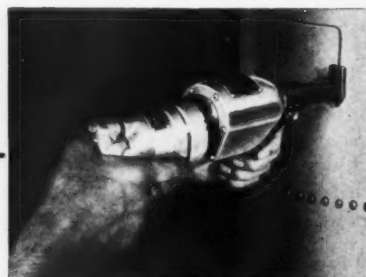
Wage increase of \$1 a day retroactive to May 15, 1942, recommended for about 300 boilermakers, helpers, welders and burners at Magna, Arthur, and Bingham Canyon, Utah, operations of Utah Copper Company.

U. S. Maritime Commission asks for \$2,000,000 appropriation to improve food conditions, San Francisco Bay Area shipyards. . . . 300 miners, Kaiser Company's Sunnyside Mine, strike for change in superintendents. . . . Wage increases from 2 1/2c to 20c an hour approved by 10th RWLB for employees, Basic Magnesium, Inc., Las Vegas, Nev., retroactive to March 1, 1943. . . . 25,000 women expected to leave war jobs to stay home during summer to care for children out of school. . . . Northwest wage-earner still 5 to 10 per cent ahead of high cost of living, according to Dr. G. B. Noble, chairman, Northwest RWLB.

Welding has been recognized as a separate craft for the first time in a decision by Utah LRB, who designated United Brotherhood of Welders, Cutters and Helpers of America, the collective bargaining agent for welders of the Koppert Company at Geneva steel plant.

International Union, Mine, Mill and Smelter Workers for underground metal workers in Utah, and mine operators submit request for pay raise from 80c to \$1.30 a day to WLB. . . . 1400 employees Union Oil Company get general wage increase of 5c an hour. . . . Boeing Aircraft Company grant vacation with pay allowance, one day for each month of employment of year ending June 30, 1943, instead of one week as formerly. . . . E. L. Burton, railroad worker, Santa Fe shops, Bakersfield, chosen by National Safety Council judges for citation of "Safety Ace" and award of hundred dollar bond.

California Supreme Court rules tips may not be included as part of minimum wage after California Drive-in Restaurant Association, Los Angeles, took case to court as result of Industrial Welfare Commission's insistence waitresses be paid legal minimum wage regardless of amount of tips. . . . Western Compress Company employees denied wage increase by 10th RWLB. . . . Wage increase of 5 1/2 cents an hour approved by 10th RWLB to employees Caterpillar Tractor Company, San Leandro, Calif.



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THE WEST ON ITS WAY

ARIZONA

STORAGE FACILITIES—W. A. Beaubien, Phoenix, has been awarded contract by U. S. Dist. Engineer Area Office, Phoenix, for construction of additional storage facilities at an airfield in Pima County, Ariz., to cost more than \$50,000.

SHED—Shumaker-Evans Co., Phoenix, has been awarded contract by U. S. Dist. Engineer Area Office, Phoenix, for construction of wash rack shed at an airfield in Maricopa County, Ariz., to cost less than \$50,000.

BOILER HOUSE, ETC.—Gilbert E. Olson, Phoenix, has been awarded contract by U. S. Dist. Engineer Area Office, Phoenix, for construction of boiler house addition and fuel oil storage at a fort in Cochise County, Ariz., to cost under \$50,000.

BARRACKS BUILDINGS—John W. Joynt, Tucson, has been awarded contract by U. S. Dist. Engineer Area Office, Phoenix, for construction of barracks buildings at a modification center in Pima County, Ariz., to cost less than \$50,000.

UTILITIES—J. S. Sundt, Tucson, Ariz., has been awarded contract by U. S. Dist. Engineer Area Office, Phoenix, for construction of underground utilities and appurtenant facilities at a modification center in Pima County, Ariz., to cost more than \$100,000.

BUILDINGS—Shumaker-Evans, Phoenix, has been awarded contract by U. S. Area Engineer, Kingman, Ariz., for construction of a group of hospital buildings and administration buildings at an ordnance depot in Coconino County, Ariz., to cost more than \$200,000.

AIRFIELD CONSTRUCTION—A. Teichert & Son and John Gist, Sacramento, have been awarded contract by U. S. Dist. Engineer Area Office, Phoenix, for construction of an interchange railroad track at an airfield in Cochise County, Ariz.

CALIFORNIA

PLANE PARTS FACTORY—Douglas Aircraft Company is locating a factory in the old Glo-fire Mfg. Co. building on Spring Street, Elsinore, spending about \$20,000 in renovating the building.

REFINERY—The Texas Co. is adapting present refinery on East Pacific Coast Highway, Wilmington, into a 100-octane gasoline refinery, spending about \$50,000,000 and constructing about 40 buildings. Foster-Wheeler Corp., Los Angeles, have been awarded contract for the alkylation system and the feed preparation.

REMODELING—W. L. Martin, Los Angeles, has been awarded contract by U. S. Dist. Engineer Area Office, Los Angeles, for remodeling building into offices in Los Angeles County, Calif., to cost less than \$50,000.

RECREATION BUILDING—Edward R. Siple, Los Angeles, has been awarded contract by U. S. Dist. Engineer Area Office, San Bernardino, for construction of a recreation building at a flying school in San Bernardino County, Calif., to cost less than \$50,000.

HANGAR—Star Mfg. Co., Oklahoma City, Okla., has been awarded \$200,000 contract by Bureau of Yards and Docks, Navy Dept., Washington, D.C., for fabrication and delivery of structural steel hanger for Naval Air Station, Alameda, Calif.

BUILDING—Holmes Construction Co., Los Angeles, has been awarded contract by U. S. Dist. Engineer Area Office, Los Angeles, for moving and re-erection of theater of operation buildings in Los Angeles County, Calif., to cost less than \$50,000.

AIR BASE CONSTRUCTION—Macco Construction Company, Clearwater, has been awarded contract by U. S. Navy, 11th Naval Dist., San Diego, for \$502,000 for construction of extensions to runways, widening of taxi-lanes and for additional warm-up platforms at the auxiliary air base near Holtville, Calif.



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THE WEST ON ITS WAY

HOSPITAL—Plans are under way for post-war construction of two new ward buildings at Agnews State Hospital to cost \$600,000 to be located at the farm annex.

DWELLINGS—National Housing Agency has authorized construction of 300 private dwellings and 150 conversions of existing structures totaling about \$2,000,000 in the San Jose-Sunnyvale area of Santa Clara Valley, Calif.

BUILDING—Stolte, Inc., 1405 San Antonio Ave., Alameda, has been awarded contract by U. S. Engineer Office, Sacramento, for construction of a building in Sacramento County to cost over \$100,000.

HOSPITAL—Jackson Bros.-Le Sage, 547 S. Fairfax Ave., Los Angeles, have been awarded contract by U. S. District Engineer Area Office, Los Angeles, for construction of hospital in Los Angeles County, Calif., to cost less than \$1,000,000.

CONSTRUCTION—Guy E. Hall, Bakersfield, has been awarded contract by Area Office, San Bernardino, for additional construction at an Army Air Base in Kern County, Calif., to cost more than \$50,000.

TAXIWAY, ETC.—Harvey Adair Constr. Co., El Monte, has been awarded contract by U. S. Dist. Engineer Area Office, San Bernardino, for construction of a hangar apron and taxiway at an observation air-drome in San Bernardino County, Calif., to cost less than \$50,000.

RUNWAYS AND TAXIWAYS—L. M. White and M. H. Hasler, Tucson, Ariz., have been awarded contract by U. S. Area Engineer, Kingman, Ariz., for construction of runway extensions and taxiway additions at an Army Air Base in Riverside County, California, to cost more than \$100,000.

DWELLING UNITS—Allied Contractors, Los Angeles, have been awarded \$143,931 contract by Federal Public Housing Authority, San Diego, for construction of 100 temporary dwelling units at Chula Vista, San Diego County, Calif.

DWELLING UNITS—Allied Contractors, Los Angeles, have been awarded \$392,000 contract by Federal Public Housing Authority for construction of 300 dwelling units, community buildings, etc., at Olive-wood project in National City, San Diego County, Calif.



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BUILDING—Theo. G. Meyer, 735 Portola Drive, San Francisco, has been awarded contract by U. S. Engineer Office, Sacramento, for construction of a building in Fresno County, to cost under \$50,000.

BUILDING—Trehwhitt-Shields & Fisher, Fresno, have been awarded contract by U. S. Engineer Office, Sacramento, for construction of building in Kings County, Calif., to cost under \$50,000.

BUILDING—Guy E. Hall, Bakersfield, has been awarded contract by U. S. Engineer Office, Sacramento, for construction of building in Kern County, to cost under \$50,000.

BUILDING—Harris Construction Co., Fresno, has been awarded contract by U. S. Engineer Office, Sacramento, for construction of a building in Merced County, Calif., to cost under \$50,000.

ALTERATIONS—Sacramento Roof & Insulation Co., Sacramento, has been awarded contract by U. S. Engineer Office, Sacramento, for alteration in Lassen County, Calif., to cost less than \$100,000.

ALTERATIONS—R. J. Daum, Inglewood, has been awarded contract by U. S. Engineer Area Office for alterations to buildings at a Fort in Los Angeles County, Calif., to cost less than \$100,000.

MOVING & ALTERING BUILDINGS—Baruch Corp., Los Angeles, has been awarded \$151,968 contract by Federal Public Housing Authority for moving and altering buildings in San Diego, Calif.

AIRFIELD—Congress approved \$130,218 for expansion of steam and electric distribution systems, greater radio transmitter facilities, Moffett Field, Calif.

HOSPITAL—War Department plans construction \$5,000,000 Army hospital on Balboa Ave., Van Nuys, Calif., under supervision U. S. Engineers Dept.

HOSPITALS—War Department, Washington, announced plans for two \$5,000,000 hospitals in Northern California, at Auburn and Palo Alto.

BUILDING—L. P. Scherer and T. C. Priehard, Redlands, have been awarded contract by U. S. Dist. Engineer Area Office, San Bernardino, for construction of all-purpose recreation building at an air depot in Orange County, Calif., to cost more than \$50,000.

BUILDING—A. R. Liner, Merced, has been awarded contract by U. S. Engineer Office, Sacramento, for construction of building in San Joaquin County to cost less than \$50,000.



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FILTRATION PLANT—Central California Constr. Co., Inc., San Francisco, has been awarded contract by U. S. Engineer Office, San Francisco, for construction of filtration plant in the San Francisco Bay Area.

GLASS JAR PLANT—The Alexander H. Kerr Glass Company is opening a glass container plant at Santa Ana, Calif.

CHEMICAL FACTORY—The Barnebey-Cheney engineering firm, Columbus, Ohio, is planning to bring a \$100,000 war industry to Santa Clara, Calif. They handle government contracts for manufacturing chemicals to be used in gas masks.

DUPLICATOR FACTORY—The Niagara Duplicator Company is opening a plant for producing duplicator material at Concord, Calif.

PIPE FACTORY—U. S. Pipe & Manufacturing Company, San Francisco, has purchased 6 acres on East Grand Avenue, South San Francisco, to manufacture pipe fabricating, etc., in the repaired and altered buildings.

DEHYDRATING PLANT—The World-Wide Food Products Co. has leased property in Stockton to set up plant for manufacture of food concentrates.

COLORADO

INCINERATOR—M. E. Carlson, Denver, has been awarded contract by U. S. Dist. Engineer Office, Denver, for construction of one incinerator and utilities in the vicinity of Denver, Colo.

REMODELING—E. B. Jones, Jr., Denver, has been awarded contract by U. S. Dist. Engineer Office, Denver, Colo., for modification of existing permanent structures, re-assembling and erecting buildings, etc., in El Paso County, Colo., to cost less than \$500,000.

MODIFICATION CENTER—Thomas Bate & Sons Co., Denver, have been awarded contract by U. S. Dist. Engineer Office, Denver, for construction of the proposed modification center in the Denver, Colo., vicinity, to cost more than \$1,000,000.

AIR BASE BUILDING—Newstrom & Davis Co., Denver, have been awarded contract by U. S. Dist. Engineer, Denver, for construction of one oil and lubrication storage building and electrical distribution system at an air base in Pueblo County, Colo.

BUILDING—Newstrom & Davis, Denver, has been awarded contract for construction of temporary frame building and utilities in Pueblo County, Colo., to cost under \$50,000.

BUILDING—N. R. Neilsen, Denver, has been awarded contract by U. S. Dist. Engineer Office, Denver, for construction of one Post Engineer's building and utilities, in the vicinity of Denver, Colo.

IDAHO

DEHYDRATING PLANT—A vegetable dehydrating plant being constructed at Burley, Idaho.

HEATING PLANT—J. W. Brennan, Pocatello, has been awarded contract by U. S. Engineer, Portland, for heating plant in Power County, Idaho, to cost less than \$50,000.

BUILDINGS—H. J. McNeal, Caldwell, has been awarded contract for construction of temporary frame buildings and appurtenances in Ada County, Idaho, to cost \$50,000 to \$99,999.

HOSPITAL BOILER HOUSE—H. J. McNeal, Caldwell, has been awarded contract under \$50,000 for construction of additions to hospital boiler house, Ada County, Idaho.

MONTANA

WAAC HOUSING—Bennett & Lewis, Great Falls, have been awarded contract by U. S. Engineer Office, Great Falls, for construction of additional WAAC housing facilities in Cascade County, Mont., to cost less than \$50,000.

CHAPEL—Al Johnson Contracting Co. has been awarded contract by U. S. Engineer Office, Great Falls, for construction of a chapel in Fergus County, Mont., to cost under \$50,000.

BUILDINGS—McLaughlin Const. Co., Livingston, has been awarded contract by U. S. Dist. Engineer Office, Seattle, Wash., for construction of buildings in Fergus County, Mont., to cost under \$50,000.

PLANT—Domestic Manganese & Development Co., Butte, has executed contract to provide plant facilities in Montana to cost about \$250,000, title to remain in the Defense Plant Corp.

Your Chemical Reporter



... reporting new methods, new uses, new developments and other interesting information regarding chemicals to Western industry.

New Controls on Rotenone and Pyrethrum Insecticides

Control over the manufacture, distribution and use of finished rotenone and pyrethrum insecticides has passed from the War Production Board into the hands of the War Food Administration of the U. S. Dept. of Agriculture. This change-over in jurisdiction was accomplished by the issuance by WFA, on April 29th, of Food Production Order No. 11 governing pyrethrum insecticides and, on June 26th, of Food Production Order No. 13 covering rotenone insecticides. The pyrethrum order became effective on May 1st and the rotenone order became effective on the date of its issuance—June 26th. These two orders embody, more or less, the same restrictions on finished insecticides that were formerly incorporated in WPB Conservation Orders M-133 on rotenone and M-179 on pyrethrum.

It should be remembered that these new Food Production Orders control finished insecticides only. The distribution of rotenone and pyrethrum raw materials is still governed by the War Production Board under the above-mentioned Conservation Orders.

Every manufacturer of, or dealer in, rotenone and pyrethrum insecticides should obtain copies of FPO-11 and FPO-13 and be governed thereby, as these two orders make it incumbent upon manufacturers and dealers to notify their customers of the contents thereof; and there are also a number of new regulations concerning necessary changes in labels and consumer certifications of use which should be thoroughly understood by members of the industry.

Worth Knowing . . . Sulphuric Acid Has Its Peculiarities . . .

Sulphuric Acid, probably the most widely used acid in industry today, has many interesting peculiarities not commonly known.

Sulphuric Acid is an oily, clear, water-white solution weighing about twice as much as water. In England it is known as Oil of Vitriol. It is manufactured by two methods, one of which is the old chamber process which produces a 66° Be (93 per cent) strength; and the other method the more modern contact process which produces 98 per cent strength. In its concentrated form, 70 per cent or stronger, Sulphuric Acid has little action on ordinary steel and is commonly stored and shipped in steel containers. When it is diluted with water to the weaker strengths it becomes very corrosive to iron and steel, but is easily held in lead. The strange thing is that concentrated Sulphuric Acid attacks lead. Glass or stoneware of course will hold either strength of Sulphuric Acid without difficulty.

Concentrated Sulphuric Acid is a powerful dehydrating agent; that is to say, it is very anxious to combine with water and will do so by taking moisture out of the air when present, or by "burning" wood or organic substances with which it comes in contact by taking out the moisture or oxidizing the substance to obtain the moisture. As the Sulphuric Acid becomes weaker it gradually loses its affinity for water. This craving of the acid for water explains why Sulphuric Acid spurts and bubbles when a little water is poured into a quantity of the acid. To overcome this violent reaction, everyone is cautioned always to pour a lesser amount of the acid into a greater quantity of water so that there will be plenty of water to combine with every bit of acid. This eliminates the fight which the acid molecules make for the water and obviates a dangerously violent reaction.

Sulphuric Acid is one of the few chemicals which can be produced in strengths of greater than 100 per cent. It does not seem possible to have anything in concentration of greater than 100 per cent, but because Sulphuric Acid is made up of a combination of SO₃ (sulphur trioxide) and water, you can actually absorb surplus quantities of SO₃ in the already present Sulphuric Acid to build up the percentages over the 100 per cent figure. When the Sulphuric Acid is thus supersaturated, the surplus SO₃ tends to combine with the moisture in the atmosphere and therefore this supersaturated acid is called "fuming" Sulphuric Acid. For instance, a 105 per cent fuming acid is actually made up of 77 per cent Sulphuric Acid and 23 per cent free SO₃, which SO₃ can combine with further quantities of water to form greater amounts of Sulphuric Acid. This fuming acid is made by bubbling SO₃ gas through 98 per cent Sulphuric Acid until it absorbs enough of it to reach the desired strength. If enough free SO₃ is absorbed to bring the percentage to around 110 per cent, the acid will freeze into a solid at any temperature lower than 78° F., which is a pretty warm room temperature. With a little more SO₃ absorbed in it, the material will remain frozen at a temperature as high as 94° F., and then with further additions the freezing point drops low enough for it to become a liquid again. This variation of the freezing point complicates shipments of fuming acid because if the strength is not within certain bounds the contents of the tankcar will probably arrive at its destination in a solid mass.

You probably will never have occasion to use fuming acid, of course, but it is interesting to contemplate the possibility of shipping a commodity so concentrated that one can add large quantities of water to it and still have a 100 per cent strength Sulphuric Acid.

Your Chemical Reporter will bring you helpful chemical information each month through the courtesy of Stauffer Chemical Company, San Francisco, Los Angeles and North Portland.

THE WEST ON ITS WAY

BUILDINGS—Dudley Anderson Co., Great Falls, has been awarded contract for construction of temporary frame buildings and utilities in Cascade County, Mont., to cost under \$50,000.

BUILDINGS—Kileen & Wille Construction Co., Superior, Wisc., has been awarded contract for construction of temporary frame buildings at Pennington County, Mont., to cost \$50,000 to \$99,999.

CONSTRUCTION—McLaughlin Const. Co., Livingston, has been awarded contract by U. S. Engineer Office, Great Falls, for construction of buildings with electric work in Valley County, Mont., to cost under \$50,000.

NEVADA

DWELLING UNITS—Blanchard, Maher & Ward, San Francisco, have been selected by Federal Public Housing Authority, San Francisco, to prepare plans for construction of 40 family dwelling units and 30 dormitory accommodations, to serve bombing and gunnery range at Tonopah, Nye County, Nev.

HANGARS—J. E. Burrell & Sons, Long Beach, have been awarded contract by U. S. Dist. Engineer Area Office, Kingman, for construction of additional hangars at a gunnery school in Clark County, Nev., to cost more than \$100,000.

WAREHOUSE—O. J. Scherer, Las Vegas, has been awarded contract by U. S. Area Engineer, Kingman, Ariz., for construction of an ordnance warehouse at an Army Air Force gunnery school, in Clark County, Nev.

FLOOD LIGHTING—Vancott Electric Co., Los Angeles, has been awarded contract by U. S. Area Engineer, Kingman, Ariz., for construction of plane anchorage flood lighting at an Air Corps flexible gunnery school in Clark County, Nev.

NEW MEXICO

BUILDINGS—Parks Const. Co., Dallas, Texas, has been awarded contract by U. S. Dist. Engineer Office, Albuquerque, for construction of

additional buildings and facilities at an airfield in Lea County, N. M., to cost less than \$200,000.

BUILDINGS—C. H. Leavell, El Paso, Texas, has been awarded contract by U. S. Dist. Engineer Office, Albuquerque, for construction of additional buildings and facilities at an airfield in Chaves County, N. M., to cost less than \$200,000.

BUILDINGS—H. E. Webb Construction Co., Lubbock, Texas, has been awarded contract by U. S. Dist. Engineer Office, Albuquerque, for construction of additional buildings and facilities in Luna County, N. M., to cost under \$50,000.

BUILDINGS—K. L. House Const. Co., Albuquerque, has been awarded contract by U. S. Dist. Engineer Office, Albuquerque, for construction of additional buildings and facilities at an airfield in Bernalillo County, N. M., to cost under \$100,000.

BUILDINGS—Marshall Const. Co., Dallas, Texas, has been awarded contract by U. S. Dist. Engineer Office, Albuquerque, for construction of additional buildings and facilities at an airfield in Eddy County, N. M., to cost under \$100,000.

DUST PALLIATIVE TREATMENT—J. E. Skousen, Albuquerque, has been awarded contract by U. S. Engineer, Albuquerque, for dust palliative treatment at an airfield in Lea County, N. M., to cost less than \$50,000.

BUILDINGS—H. E. Webb Const. Co., Lubbock, Texas, has been awarded contract by U. S. Dist. Engineer Office, Albuquerque, for construction of additional buildings and facilities at an airfield in San Miguel County, N. M., to cost under \$50,000.

OREGON

CARGO VESSELS—Klepp Marine Ways of Rainier has been awarded contract by the Army Transportation Corps for 204-foot wooden ocean-going cargo vessel at a figure of \$321,000.

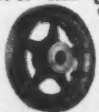
RUNWAYS AND TAXIWAYS—E. C. Hall Co. and J. C. Compton, Eugene, have been awarded contract by U. S. Dist. Engineer Office, Portland, for construction of runways and taxiways in Lane County, Ore., to cost more than \$100,000.

BUILDINGS—Henry G. Carl, Salem, has been awarded contract by U. S. Engineer Office, Portland, for construction of temporary frame buildings and appurtenances in Benton County, Ore., to cost less than \$50,000.

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STORAGE FACILITIES—Halverson Construction Co., Salem, has been awarded War Department contract for construction of storage facilities in Deschutes County, Ore., costing less than \$50,000.

PALLET BOARD PLANT—Fourth plant of Baker War Industries, Inc., to make pallet boards, utilizing local pine lumber.

FLAX PLANT—Option has been taken by Washington County flax growers for 135 acres of land near Cornelius on the Tualatin River. Option price for the land is subject to approval by the Defense Plant Corp.

PLANT FACILITIES—The Defense Plant Corp. has authorized \$185,000 increase in its contract with Columbia Steel Castings Co., Portland, Ore., to provide additional facilities for a plant in Oregon, resulting in total commitment of \$1,000,000.

VESSEL OUTFITTING—The Astoria Marine Construction Company appointed contractor for outfitting U. S. Navy escort vessels under construction at Kaiser Vancouver yards.

HOSPITAL BUILDINGS—The War Department has awarded contract between \$100,000 and \$500,000 to Brennan and Cahoon, Pendleton, for construction of hospital buildings and facilities in Umatilla County, Ore.

RUNWAYS, TAXIWAYS—E. C. Hall Co. and J. C. Compton, Eugene, have been awarded contract for construction of improvements in runways, taxiways, etc., in Lane County, Ore.

UTAH

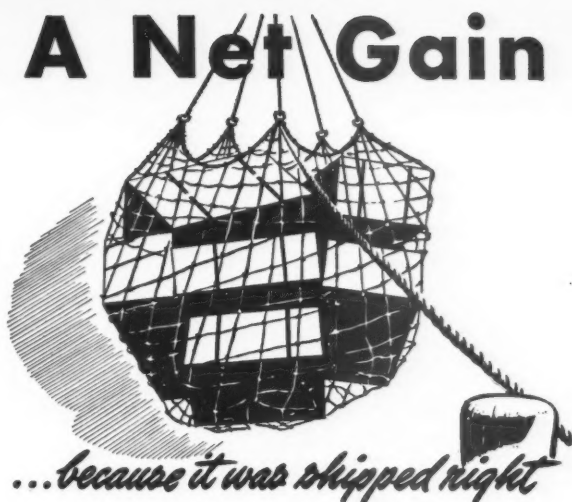
BUILDINGS—R. H. Parr, Los Angeles, has been awarded contract for construction of four buildings at an air depot in Weber County, Utah, to cost under \$40,000.

RESERVOIR—Enoch Smith Sons Const. Co., Salt Lake City, has been awarded \$74,968 contract by City Recorder, Salt Lake City, for construction of a 3,000,000-gal. reservoir in Salt Lake City, Utah.

ELECTRICAL WORK—Moore Electric Company, Salt Lake City, has been awarded contract by U. S. Dist. Engineer Office, Salt Lake City, for electrical work at a plane anchorage in Weber County, Utah, to cost less than \$50,000.

BUILDING—George A. Whitmeyer & Sons Co., Ogden, have been awarded contract by U. S. Dist. Engineer Office, Salt Lake City, for construction of air freight terminal building at an airfield in Weber County, Utah, to cost less than \$88,000.

A Net Gain



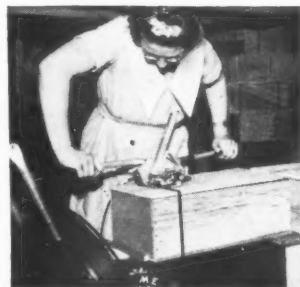
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THE WEST ON ITS WAY

RECREATION BUILDING—Intermountain Construction Co., 325 Atlas Bldg., Salt Lake City, has been awarded contract by U. S. District Engineer Office, Salt Lake City, for construction of an all-purpose recreation building in Salt Lake County, to cost more than \$50,000.

ROOFING—Alta Roofing Co., Ogden, has been awarded contract by U. S. District Engineer Office, Salt Lake City, for roofing warehouses and sheds in Tooele County, Utah, to cost under \$100,000.

HOUSING PROJECT—Burton Nichols, Tooele, has been awarded contract by Federal Public Housing Authority, Kansas City, Mo., for construction of a 100-unit housing project in Tooele, Utah.

WASHINGTON

HOSPITAL FACILITIES—Standard Const. Co., Tacoma, has been awarded contract by U. S. Dist. Engineer Office, Seattle, for construction of additional hospital facilities in Pierce County, Wash., to cost less than \$500,000.

FURNITURE PLANT—Herbert F. Diers and Howard Petrie have purchased the Auburn plant of the Ace Hardwood Panel Company, to be used in the manufacture of furniture.

DWELLINGS—Salt Lake City Housing group optioned 40 acres in Country Homes Estate, north of Spokane, in \$1,500,000 program for construction of 190 single family dwellings. Water system, costing more than \$25,000 included.

FIRE ALARM SYSTEM—American District Telegraph Co., Seattle, has been awarded \$50,000 contract by U. S. Engr. Office, Portland, for construction of fire alarm system in Clark County, Wash.

HOSPITAL—W. G. Clark Co., 408 Aurora, Seattle, has been awarded contract by U. S. Army Engineers for construction of hospital in King County, to cost between \$100,000 and \$500,000.

BUILDING—Brennan and Cahoon, Pendleton, Ore., have been awarded contract by Public Buildings Admin., Federal Works Agency, Washington, D.C., for construction and equipping of a recreation building at Pasco, Wash., to cost \$56,419.

FACTORY BUILDING—H. E. Carlborn has been awarded contract for construction of factory building at 4616-24 Seventh Ave. South, Seattle, for the Smithway Machine Co.

PUBLIC HOUSING—B. H. Sheldon, Spokane, has been awarded \$875,000 contract for public housing at Everett, Wash.

SCHOOL—\$1,000,000 high school is being planned for Bremerton, to be built on a 17-acre site at 13th and High streets.

HOUSING—Nettleton & Baldwin, Seattle, have been awarded \$1,875,343 contract for housing at Bremerton, Wash.

HOSPITAL—Clyde M. Ludberg Co., Spokane, has been awarded \$1,000,000 contract by U. S. Army Engineers, Seattle Dist. Office, for construction of army hospital buildings in Grant County, Wash.

WATER SYSTEM—A. J. Goerig Const. Co., Seattle, has been awarded \$364,403 contract by Federal Public Housing Authority, for construction of a master water system for housing projects in Vancouver, Wash.

BUILDING—The General Construction Co., Seattle, has been awarded contract by Bureau of Yards and Docks, Navy Dept., Washington, D.C., for construction of large frame office and women's locker building at Seattle, to cost \$100,000.

HOUSING—Howard S. Wright and L. H. Hoffman, Seattle, have been awarded \$6,600,000 contract by Federal Public Housing Authority, Seattle, for construction of new Port Orchard Housing Project, Port Orchard, Wash.

GASOLINE STORAGE FACILITIES—Weber Plumbing and Heating Co., Tacoma, has been awarded contract by U. S. Engineer Office, Ft. Lewis, for additional gasoline storage facilities in Pierce County, Wash., to cost less than \$50,000.

BUILDINGS—L. C. Havstad, Pasco, has been awarded contract by U. S. Engineer Office, Portland, for construction of buildings in Franklin County, Wash., to cost under \$50,000.

WATER CONTROL SYSTEM—Consolidated Electrical Contractors, 619 W. First, Spokane, have been awarded contract for less than \$50,000 for construction of a water control system in Spokane, by U. S. Army engineers.

FUELING SYSTEM—Leo S. Ross Const. Co., Seattle, has been awarded contract by U. S. Engineer Office, Seattle, for construction of fueling system in Clallam County, Wash., to cost less than \$50,000.

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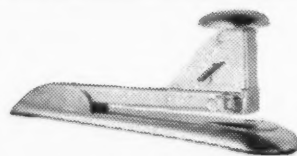
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2,209,753, 2,209,754

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WESTERN TRADE WINDS

NEWS ABOUT THOSE WHO DISTRIBUTE AND
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Charles C. Cheevers has been appointed Pacific Coast service manager for the Cleveland Diesel Engine Division of General Motors Corporation, at the West Coast office of firm, 111 Sutter Street, San Francisco.

L. J. Roberts, formerly sales engineer at the Pacific factory of B. F. Goodrich Co. in Los Angeles, has been transferred to the field engineering department of the company at its main office in Akron, Ohio.

Harry H. Phillips, 2148-15th Avenue, San Francisco, Division Supervisor of the United Laboratories, Inc., has announced the opening of new plant facilities in that city. United Laboratories, Inc., is a maintenance research organization, featuring plastic rock, a material widely used for the repair, maintenance and resurfacing of industrial floors, loading platforms, etc. All of the component ingredients used in the manufacture of plastic rock are secured from western sources. The San Francisco plant serves the eleven western states area.

D. A. Robinson has been made distributor for Caterpillar Tractor Company at Salt Lake City, Utah.

Bushnell Controls & Equipment Company, 117 West Ninth Street, Los Angeles, and 220 Bush Street, San Francisco, headed by B. O. Bushnell, now represents Cochrane Corp. in California, Western Nevada and Arizona. Bushnell has also become representative for the Hays Corporation of Indiana.



Kurt Steindorff, who has been with General Electric Co. for over 29 years, has been appointed Pacific District Manager of the Resale Section, Industrial Division of the company.

Materials Equipment Company has moved from 1807 E. Olympic Blvd. to larger quarters at 1619 S. Hill Street, Los Angeles. A. M. Stevens, manager, has announced the addition of G. R. Furbush to their organization. They represent Metzgar Company, Stoner-Maurer Company, Towsley Trucks, Inc., and The Wassell Organization.

Gordon W. Sabold, formerly field representative, Edward G. Budd Mfg. Co., Philadelphia, has been placed in charge of new Pacific Coast offices opened by the company in Seattle.

A. R. Johnson, formerly with the Atkinson Pollock Company, Los Angeles, has been appointed engineering and sales representative for Young Radiator Company in Southern California and Nevada.



Harry L. Smith has been appointed vice president and general sales manager of Kelite Products, Inc., Los Angeles manufacturer of advanced cleaning materials. Mr. Smith formerly covered the entire country as a "trouble

shooter" on cleaning and processing problems. Bruce Wiswall has been named chief of Engineering Division of Kelite.

F. A. Weisenberger has been named manager of the San Francisco branch of Timken Roller Bearing Company's service-sales division, succeeding F. H. Lindus who resigned. Weisenberger comes West from a similar position in Kansas City.

Three General Electric Company men to be promoted are: G. F. "Jeff" Maugher, former manager of Phoenix office, to assistant to manager of Pacific District, headquarters in San Francisco; Loys Griswold of the Los Angeles office to manager of Phoenix branch; Arthur D. Bragg of San Francisco office to assistant to manager of Los Angeles office.



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SINGLE PHASE, 50 OR 60 CYCLE— 440 TO 220/110 VOLTS

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- 8—3 K. V. A. Westinghouse
- 12—5 K. V. A. Westinghouse
- 4—7½ K. V. A. Westinghouse
- 3—10 K. V. A. Westinghouse
- 1—37½ K. V. A. Westinghouse

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YOURS FOR THE ASKING

1267

Blowerless Furnace—A two-color bulletin gives complete information on this furnace as to construction, firing, door, controls and uses, and lists complete table of the eight standard sizes with specifications. *Mahr Manufacturing Co., Div. of Diamond Iron Works, Inc., Minneapolis, Minn.*

1268

Plastic Rock—"Plastic Rock for Resurfacing Floors" gives complete information about Plastic Rock which is a floor surfacing composed of Siloxide rock, fibrated asphalt paste and a tempering powder, and will withstand heavy loads on steel wheels, is sanitary, quiet, easy to clean. *United Laboratories, Inc., Harry H. Phillips, Div. Supervisor, San Francisco, Calif.*

1269

Smaller War Plants Corp.—A special booklet, "Spreading the Work," by Smaller War Plants Corporation discusses the corporation's functions, powers and national organization, including its close working relationships with the procurement services and American industry, available to "Small Manufacturers" in the Western states. *Western Regional Office, Smaller War Plants Corp., San Francisco.*

1270

Portable Electric Tools—New manual detailing how to get maximum service from portable electric tools. Included in this 20-page pocket size booklet is detailed information on the more common and simple problems in connection with the maintenance of the motor, cable, switch and brushes. *Independent Pneumatic Tool Co., Chicago, Ill.*

1271

Turbine-Electric Drive—58-page publication "Turbine-electric Drive for Ship Propulsion" presents explanation of that type equipment, useful to ship builders and operators faced with problem of training personnel for its installation, operation and maintenance. *General Electric Company.*

1272

Welding—Pocket-size charts present in tabulated form such items on cutting and welding as metal thickness, tip and drill sizes, oxygen pressure, consumption, gas pressure, acetylene cu. ft. per minute, cutting speed, length of flame cone, etc. *Victor Equipment Co.*

1273

Welding Flames Chart—Oxyacetylene flame adjustment color chart has been prepared particularly for guidance of new welders. It shows natural color photographs of five fundamental flame adjustments: 1. Acetylene burning in air. 2. A strongly carburizing flame. 3. Slight excess of acetylene flame. 4. Neutral flame. 5. An oxidizing flame. Being graphic, the chart conveys the proper appearance of the various welding flames faster and more accurately than any amount of descriptive instruction. Desired quantities of these charts may be obtained on request. *Air Reduction Co., New York, New York.*

1274

Absenteeism—Experiences of management in dealing with absenteeism in about 200 war plants, indicating methods of control tried and degrees of success which might be attained if these methods were more generally used. *Division of Labor Standards, U. S. Dept. of Labor.*

1275

Couplings—Catalog on various kinds of couplings including industrial and marine couplings, single and double self-sealing models. *E. B. Wiggins Oil Tool Co., Inc.*

1276

Industrial Dermatitis—Symptoms, causes, and how to prevent industrial dermatitis. Bulletin to familiarize management with various causes of industrial dermatitis, reprints article "Industrial Medicine" by Louis Schwartz, medical director of U. S. Public Health Service. *Standard Safety Equipment Co.*

1277

Metal Cleaning—"The Metal Cleaning Handbook," 72-page illustrated booklet, a technical manual on materials, methods and machines for war time metal cleaning. *Magnus Chemical Co.*

You owe it to yourself to keep posted—only the efficient business survives under the strain and pressure of the war effort. Literature listed in these columns may be just the answer to your need for greater production, substitute materials or knowledge of how to care for your equipment. Just drop a note to Western Industry, 503 Market St., San Francisco, and copies will be forwarded to you. If you do not use business letterheads, please name your company affiliation.

1278

Die Cushion—A die cushion cutout working model showing details of working principles of pneumatic die cushion equipment as applied to the average punch press. This cutout model is 8½" x 11" of laminated cardboard. *Dayton Rogers Mfg. Co., Minneapolis, Minn.*

1279

Foremen—16-page pamphlet, "The Foreman, The Key Man in Your Plant," gives recommended procedures in the supervisory field for management to follow in order to build sound management-supervisory relations. *National Association of Manufacturers, New York.*

1280

Assistance to Broach Users—Bulletin 290, "Broaching Do's and Don'ts" answers questions regarding broach use. It summarizes recommendations concerning broach alignment, correct mounting of broaching fixtures, and covers precautions relative to broaching operations to prevent broach breakage and reduce scrap. It contains a series of recommendations for removing stuck pieces caused by failure of power supply, incorrect seating of the piece before broaching, both in hole and surface broaching. This poster-folder is suitable for wall mounting in broaching departments of war plants. When mounted the poster measures 17 by 11 inches and is in two colors. *Colonial Broach Company, P. O. Box 37, Harper Station, Detroit, Mich.*

THE SHOWCASE

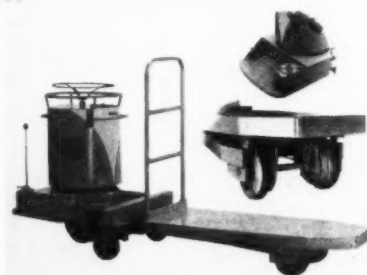
Universal Joint—Newly developed, of strong design and recently approved by the AAF as a heavy duty aircraft joint, the



outstanding features of this universal joint are: omission of center block, increased thickness, and sturdier construction of forks. Simplicity of design provides smoother transmission of power, greater wearing qualities and static torque strength. *Pacific Machine Works, Los Angeles, Calif.*

Plastic Rock—A floor surfacing composed of Siloxide rock, fibrated asphalt paste and a tempering powder. Water is added and resulting mixture is troweled over any solid floor of concrete, wood, brick, stone or steel. Will withstand heavy loads on steel wheels. First cost is low, no maintenance expense. Floor is sanitary, quiet, dustless, skid-proof and easy to clean. *United Laboratories, Inc., Harry H. Phillips, Div. Supervisor, San Francisco, Calif.*

Lift Type Turret Truck—Several new features have been added to the improved Salisbury Lift Type Turret Truck, includ-



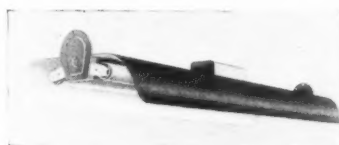
ing easy-to-reach, hand-operated hydraulic lift lever at right of driver's platform; load-wheel brake pedal, at left of platform, which actuates internal expanding brakes on the two load wheels; operator's platform is 4 inches wider than previously; enclosed primary drive chain contributes to longer life and requires less frequent lubrication; lift platform has been tapered to permit oblique angle entrances to skids; and end rail on platform is higher and heavier and is mounted in sockets for easy removal. *Salisbury Corporation, 1161 E. Florence Ave., Los Angeles, Calif.*

Welding Positioner—Designed to handle loads up to 500 pounds with the center of



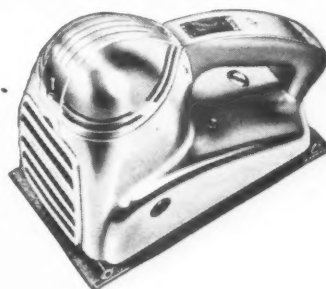
gravity of load 6" away from the table top and with a 6" eccentricity the Welding Positioner is available in hand or motor operated model. *Ransome Machinery Company, Dunellen, New Jersey.*

Fluorescent Lighting—A new line of fluorescent lighting units featuring ease of maintenance and V-shaped wiring channels. Physical characteristics of the line



comply with WPB's latest order and conform with recommendations of the Bureau of Standards. The nonmetallic reflector of each unit is removable without turning off the current or removing the lamps. Two 2-lamp models are offered, one with two 40-watt lamps and the other with two 100-watt lamps. Where continuous line lighting or individual 4-lamp models are desired, three units are available, one using four 40-watt lamps, a second using four 100-watt lamps and a third using four 100-watt lamps but requiring only one 4-lamp ballast. *Fostoria Pressed Steel Corp., Fostoria, Ohio.*

Portable Sander—A well-designed unit with a minimum of vibration. Centrifugal force expels dust from the abrading sur-



face, keeping the grains clean for fast cutting. The detachable pads take 1/3 sheet of abrasive. Special pads for odd shapes or contours are available. *Sterling Tool Products Co., 363 E. Ohio Street, Chicago, Ill.*

Cutting Machine—National Type JR Shape Cutting Machine designed to handle



cutting jobs from the smallest up to an overall size of 3' x 4' and featuring accuracy in cutting, compactness of size, ease of control and economy of operation. *National Cylinder Gas Company, Chicago, Ill.*

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THE SHOWCASE (Concluded from Pg. 49)

Floor Protection—AWOG, new floor product said to resist penetration of acid, water, oil and grease to a degree never before approached. It facilitates cleaning and sanitation, is smooth and dustless, and withstands heavy traffic. Recommended for new floors, overlays on concrete, brick, stone or wood and for repairing and resurfacing. *Flexrock Company, Philadelphia, Penna.*

Rust Prevention Paint—Paint to produce a protective film for exposed surfaces defying weather extremes, light, heat, gases,

acids, sea water, etc., and inhibiting electrolysis and corrosion, known as S.R.P. *Rust Preventive Paint. L. Sonneborn Sons, Inc., New York, N. Y.*

Work Feeder—This new semi-automatic fixture for feeding and holding work while drilling and tapping operations are performed, reduces work-handling time. It



will feed, hold and eject work pieces at the rate of 3000 to 5000 per hour. It can handle not only round pieces but flat stock, such as squares, rectangles, ovals, and irregularly shaped pieces and can be adjusted to accommodate work from 1" to 3" in diameter at widest portion, and from 1/8" to 3/4" in thickness. Cylindrical work in small sizes can also be handled. *Mead Specialties Company, 15 South Market Street, Chicago, Illinois.*

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TIME LOST CAN NEVER BE REGAINED

*"Speed will count.
Lost ground can
always be regained...time never."**

The wisdom of these words cannot be refuted. During war, as at no other time, speed is of the essence . . . but, dependability and economy are close companions. Consider the shipping container charged with the responsibility of carrying valuable cargo under the toughest of transportation conditions. It must be strong so as to provide maximum protection. It must be

CABCO

light in weight so as to save tonnage. It must be compact so as to save space. It must be carefully designed

so as to save critical materials. It must be easy to handle so as to save time in packing, shipping and unpacking.

Cabco Allbound Boxes and Crates fit these conditions perfectly. Where else can you find ready made containers such as these: factory made in one piece complete; require no hammer, no nails to set them up; come to you flat and require minimum storage space; made of light weight wood veneer to save weight; "Allbound" with steel wires and reinforced at the ends for great strength; wire loop fasteners for utmost speed in setting, packing and unpacking; specially designed to fit the exact requirements of your product whether it may be vegetables or munitions, canned goods or bolts and nuts. Allbound Boxes and Crates will serve you.

* Franklin D. Roosevelt to Congress—January 6, 1942

ALLBOUND CRATES and boxes bring 'em through CALIFORNIA BARREL COMPANY, LTD.

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Elevator is 143 feet long . . . Buckets are 72" wide, each has a capacity of 10 cu. ft., and are carried on 30" pitch chain . . . The head shaft is 12" in diameter and buckets are hinged on 2 15/16" diameter cross rods.

If you are faced with a Material Handling problem, S-A Engineers will be glad to help you work out a solution that will enable you to save time and money, either now or in the future. Make use of these experienced engineers today. Data Books on any type of bulk conveying equipment sent on request.

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